

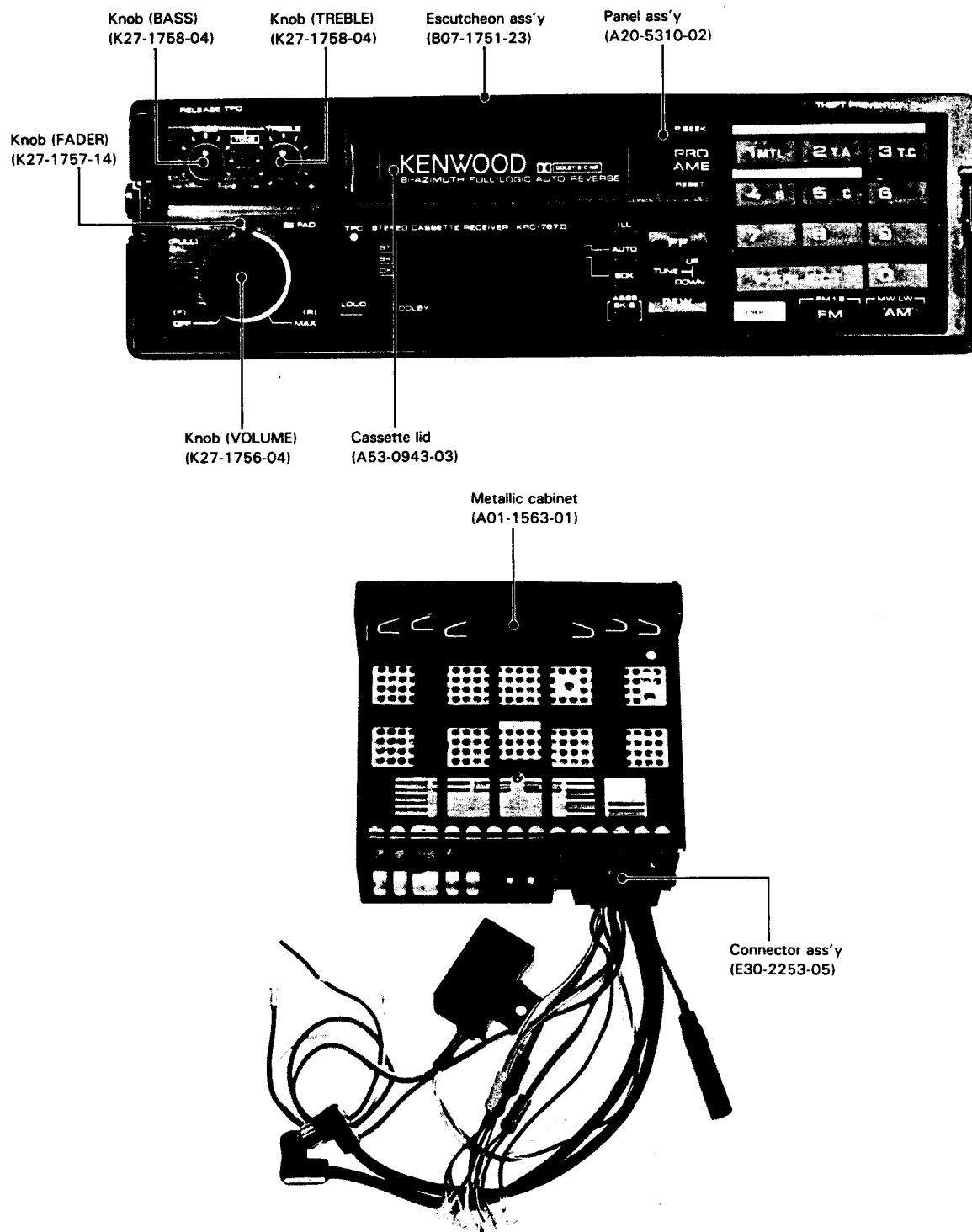
CASSETTE RECEIVER

KRC-767D

SERVICE MANUAL

KENWOOD

© 1987-10 PRINTED IN JAPAN
B51-3321-00(T)1141



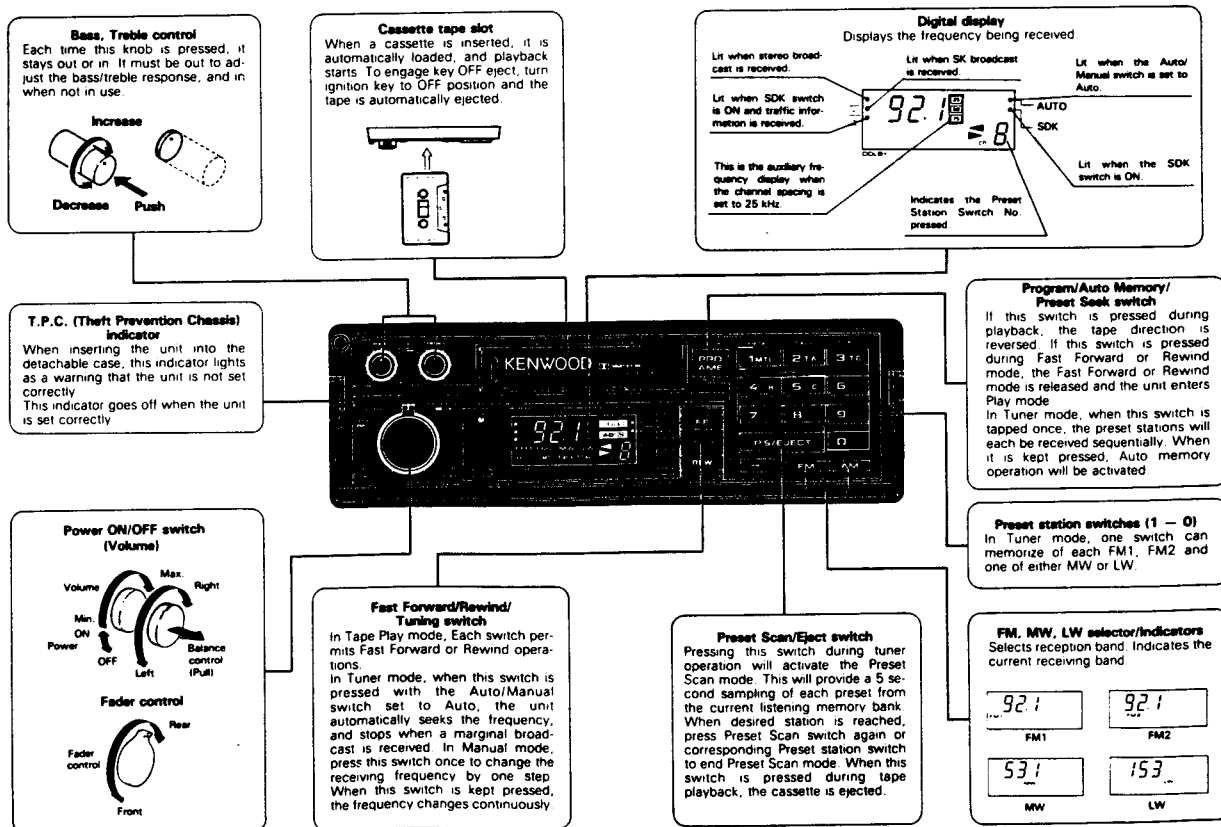
* Refer to parts list on page 45.

CONTENTS/CONTROLS & INDICATORS

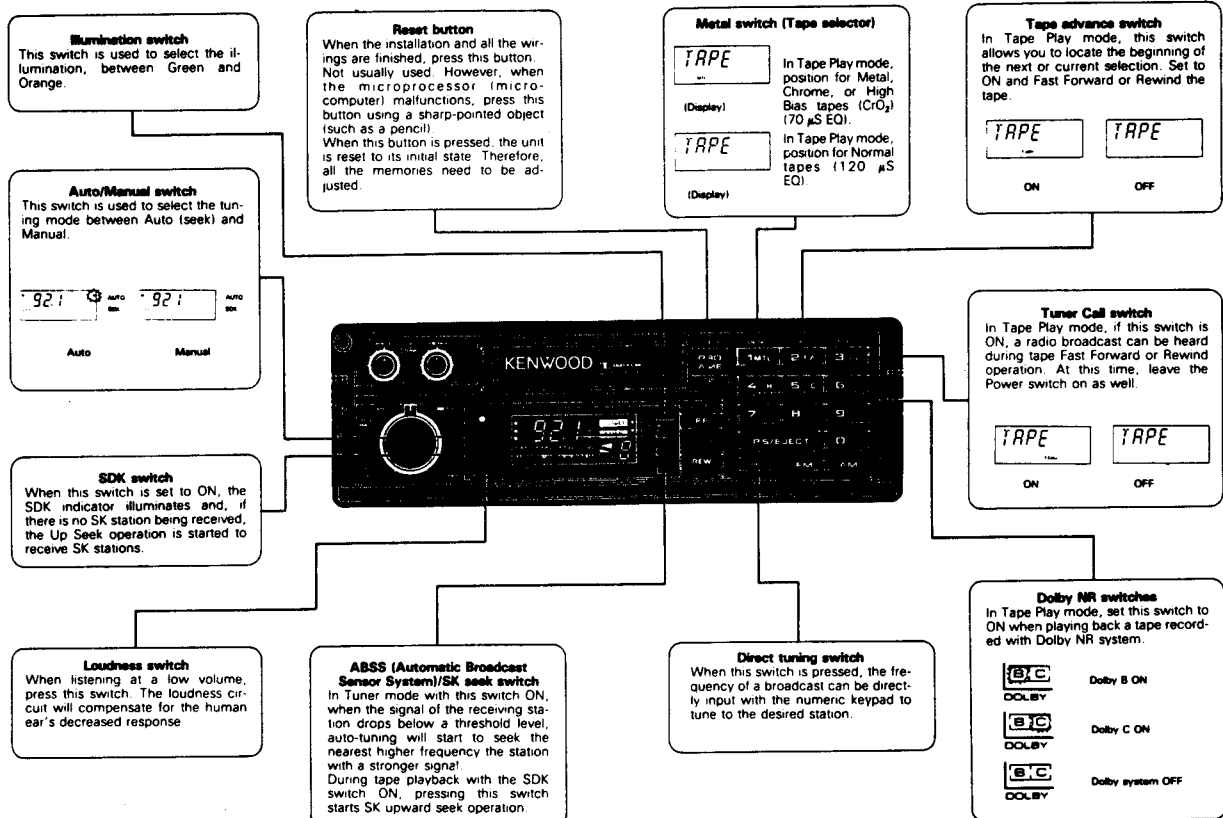
Contents

CONTROLS & INDICATORS	2	ABGLEICH	25
DISASSEMBLY FOR REPAIR	4	ADJUSTMENT/REGLAGES/ABGLEICH	26
BLOCK & LEVEL DIAGRAM	5	VOLTAGE TABLES	26
CIRCUIT DESCRIPTION		PC BOARD (1/2)	27
DESCRIPTION OF COMPONENTS	6	PC BOARD (2/2)	29
CIRCUIT DESCRIPTION	8	CIRCUIT DIAGRAM	35
BA3708F GAP DETECTION IC	8	EXPLODED VIEW (MECHANISM)	43
μ PD75108G-604-1B MICROPROCESSOR IC	11	EXPLODED VIEW (UNIT)	44
MECHANISM DESCRIPTION	18	PARTS LIST	45
ADJUSTMENT	23	PACKING	60
REGLAGES	24	SPECIFICATIONS	Back cover

Controls & indicators



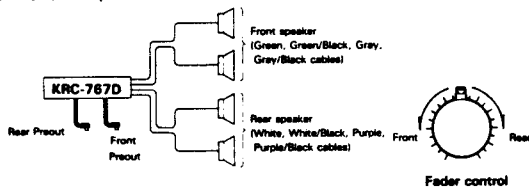
CONTROLS & INDICATORS



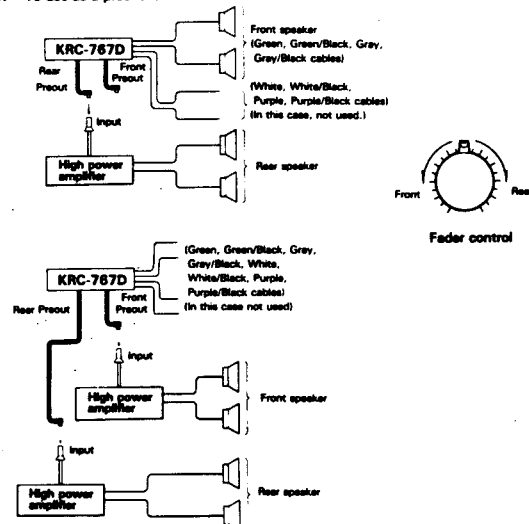
Fader control

When a 4-speaker system is constructed using the fader control, 3 types of operation are possible as follows.

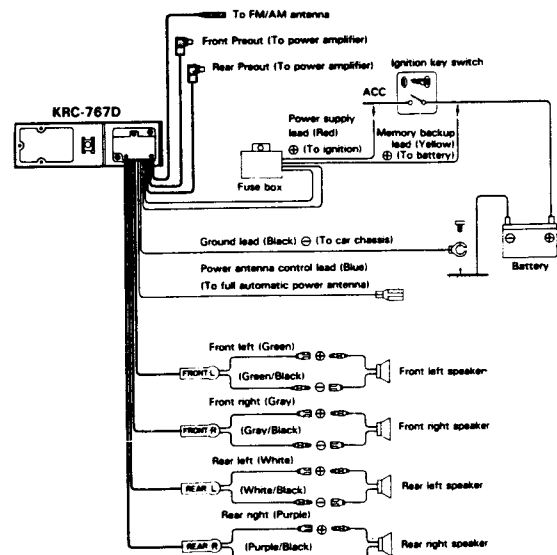
1. To use as a power fader



2. To use as a preout fader

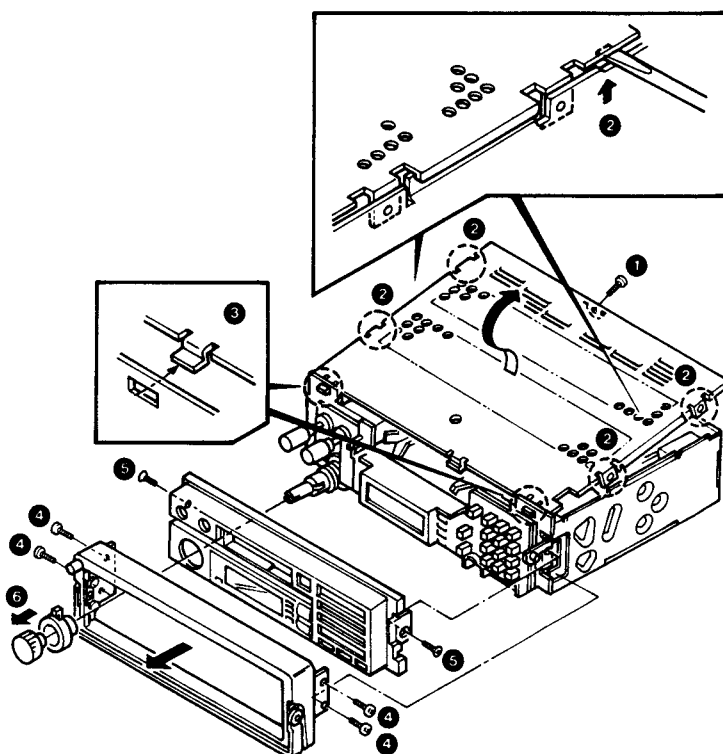
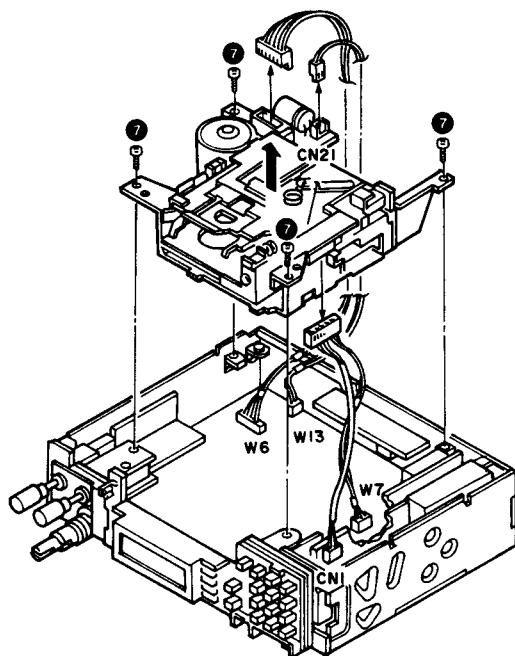


Connection



DISASSEMBLY FOR REPAIR

1. Remove the screw ① at the rear of the top cover.
2. Using the flat-blade screwdriver, remove the hooks at the both sides of the top cover in the direction of the arrow. ②
3. Remove the top cover paying attention to the two lugs located at the front side of the top cover. ③
4. Remove the four screws ④ retaining the handle.
5. Remove the two screws ⑤ at the both sides of the front panel.
6. Remove the volume knob and the fader knob in the direction of the arrow, then remove the front panel in the direction of the arrow. ⑥

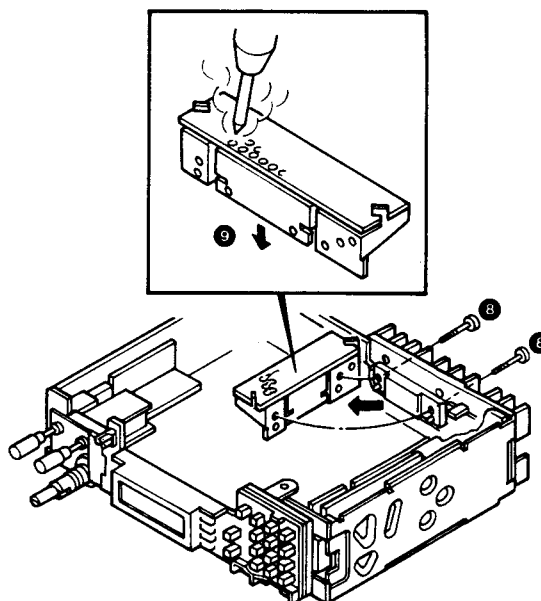


Removing the mechanism assembly

7. Remove the four screws ⑦ retaining the mechanism ass'y, and remove the three connectors.

Removing the power IC

8. Remove the two screws ⑧ retaining the power IC at the rear, and slide it in the direction of the arrow.
9. Unsolder the power IC, and remove it in the direction of the arrow. ⑨



DISASSEMBLY FOR REPAIR/BLOCK & LEVEL DIAGRAM

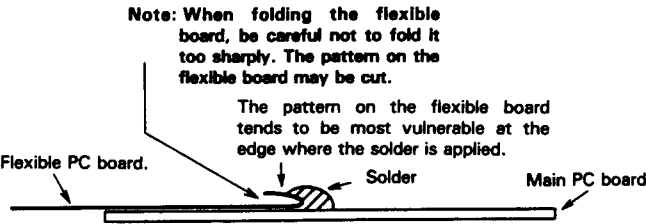
Removing and installing the flexible PC board

1. Removing

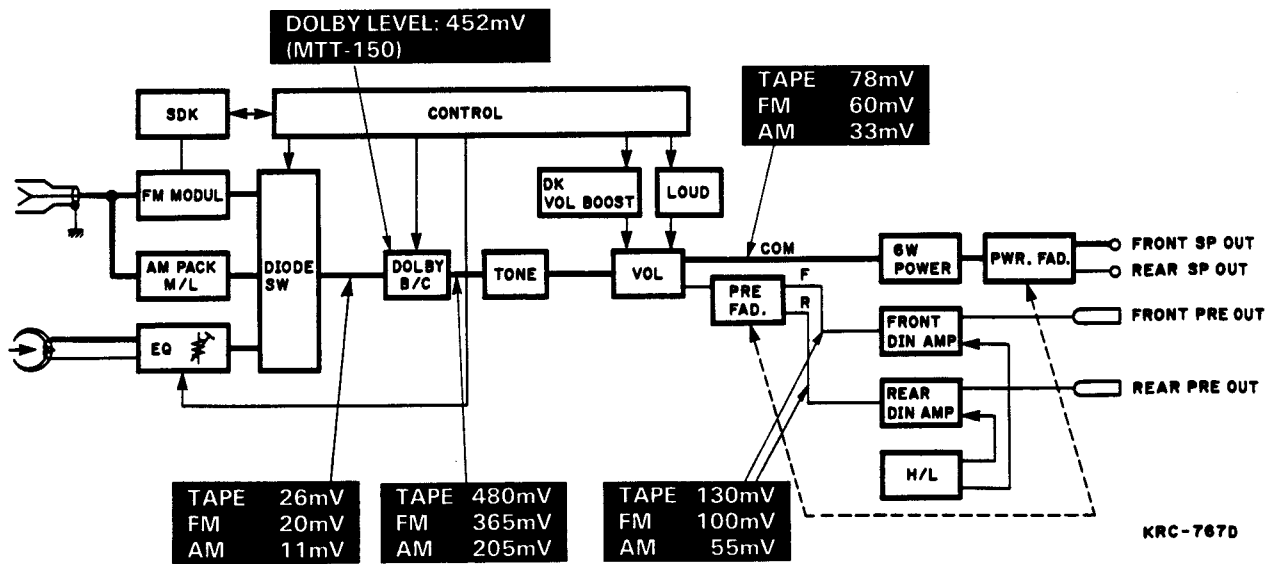
Using a soldering iron, heat the flexible board from one end to other for removal.

2. Installing

Bend the edge of the flexible board, and solder the flexible board onto the main PC board, as shown in the figure below.



Block & level diagram



CIRCUIT DESCRIPTION

Description of components

Tuner Unit (X05-3362-70, 2-71)

Device	Use and Function	Operation, Condition and Compatibility
IC1	FM IF AMP/DET	Equivalent to LA1140
IC2	NOISE CANCELLER/MPX	Equivalent to LA2110, LA3376
Q2	IF AMP	
Q3	ANRC BUFF	
Q4	FM BAND-WIDTH CONTROLL	Turns OFF when SEEK is engaged
Q5	ANRC DRIVE	
Q6	CRSC	

Preamp Unit (X08-2202-70, 2-71)

Device	Use and Function	Operation, Condition and Compatibility
IC1	TAPE EQ AMP	
IC2	DOLBY B/C	(NR-9550 or BH-2421)

Audio Unit (X11-2422-70, 2-72)

Device	Use and Function	Operation, Condition and Compatibility
IC1	TONE AMP	
IC3	POWER AMP	(TA7263P)
Q1 ~ 4	LOUDNESS SW	
Q5, 6	MUTE	
Q7 ~ 8	DK VOL-UP SW	Turns OFF when DK is ON
Q9	LOUDNESS CONTROL	

Synthesizer Unit (X14-2172-70, 2-71)

Device	Use and Function	Operation, Condition and Compatibility
IC1	MICROPROCESSOR	Controls PLL IC (IC2), E-VOL IC and LCD DRIVER IC with serial data. Provides the KEY MATRIX and processes the key operations of the front panel. Mechanism control, EQ/DOLBY control, audio signal selection control, power control, ILL control, etc.
IC2	PLL IC	Comprising the PLL IC together with the AM PACK and the LOCAL OSC in the FM FRONTEND.
IC3, 4	KEY SW	Accepts the ST/SK/DK display logic, F/R signal of TAPE, RST signal and PACK IN from external, then inputs the corresponding KEY MATRIX of the microprocessor.
IC5	GAP DETECTION IC for T-ADV	
IC6	BUFF AMP	PRE AMP for REAR
IC7	BUFF AMP	PRE AMP for FRONT
Q4	INV. for $\overline{\text{RST}}$ signal from external	
Q5	Buffer for Q4's output	
Q6	INV. for outputting the $\overline{\text{DK}}$ signal to external	
Q9, 10	10V R.P.S. (Regulated Power Supply) for ILL	
Q11, 12	Switch for ILL	
Q13	Q12 inhibit Switch	
Q14 ~ 17	P-CON output circuit	
Q18, 19	5.6V, R.P.S.	
Q20	PWR ON 5.6V SW	

CIRCUIT DESCRIPTION

Device	Use and Function	Operation, Condition and Compatibility
Q21	INV. for generating POWER ON "low" signal	
Q22	PWR ON ACC SW	
Q23, 24	R.P.S. for 9V	
Q25	Display inhibit Switch	
Q26	POWER ON MUTE generator	
Q29, 30	AUDIO MUTE DRIVER	
Q35, 36	ILL select circuit (regulated line)	
Q37 ~ 40	ILL select circuit (non-regulated line)	
Q41, 42	MOTOR DRIVER for mechanism	
Q43 ~ 45	Plunger Driver for mechanism	
Q46	DK "low" signal generating Switch	
Q47, 48	IGN (ignition) "high" detection circuit	
Q49	Microcomputer MUTE INV.	
Q50 ~ 52	Backup voltage detection comparator	
Q53 ~ 56	RST STBY circuit	
Q57, 58	Manual RST circuit	
Q59 ~ 67	Microcomputer output Inverter	
Q68 ~ 73	AM/FM 9V Switch	
Q74	SK LAMP ON logic inhibit Switch	
Q75	PACK IN 5V generating Switch	
Q76	ST LAMP ON Switch	
Q79	FM AFC time constant select logic generating Switch	
Q80	PLL LPF (low-pass filter) for FM	
Q81, 82	PLL LPF (low-pass filter) for AM	
Q83	FM SEEK Stop Switch	
Q84	SD. INV (inverter)	
Q85	AM SEEK Stop Switch	
Q86	Bias Cut Switch for AM Audio Diode	
Q88	AM PACK "BS" Switch	
Q89, 91	AM AGC Cut Switch	
Q90	AM S-METER BUFF	
Q92, 93	PRE OUT H/L Switch	
Q94, 95	PRE OUT H/L Switch	
Q99, 100	Bias Cut Switch for FM Audio Diode	

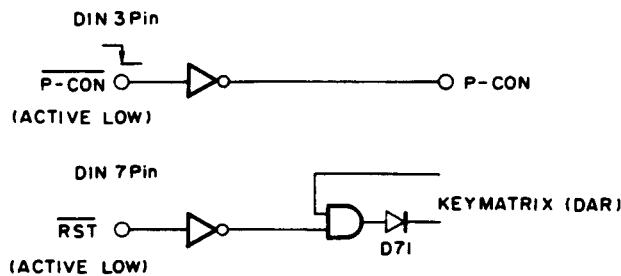
CIRCUIT DESCRIPTION

Circuit description

Mutual Reset Operation

- 1) During operation of this unit, when the external RST signal becomes low, the DAR (Digital Audio RST) key is turned ON and IC1 (microcomputer) turns the P-CON output (active low) to OFF (becomes high). Therefore, P-CON becomes low.
(However, since the unit is set to the tuner mode, operation of the tuner is possible.)

- 2) When the tape is loaded, the microcomputer turns the P-CON output to ON (becomes low). So, the P-CON is inverted to high. Then the external RST signal is inverted to high so that the DAR key is turned OFF.
- 3) When 1) occurs during the operation 2), the tape will be ejected.



BA3708F Gap Detection IC

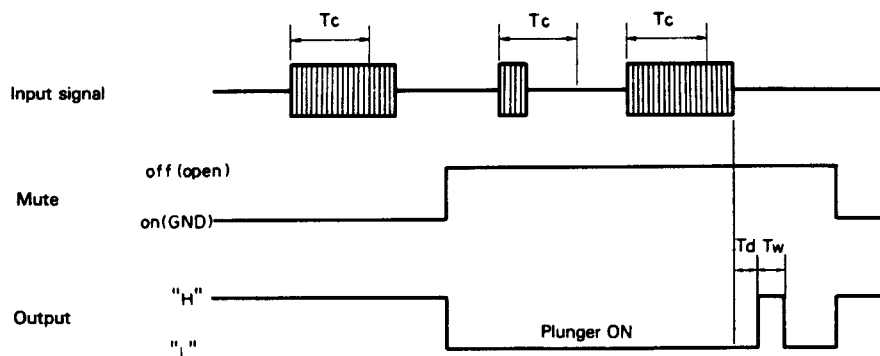
1. Outline

The BA3708F is the gap detection IC for the blank sections between tunes (taped selections). Designed to search for the beginning of tunes desired for play. This function operates on 3 Volts.

When the level of the signal is higher than the input judgment level V_{in} and the signal length is longer than the music signal

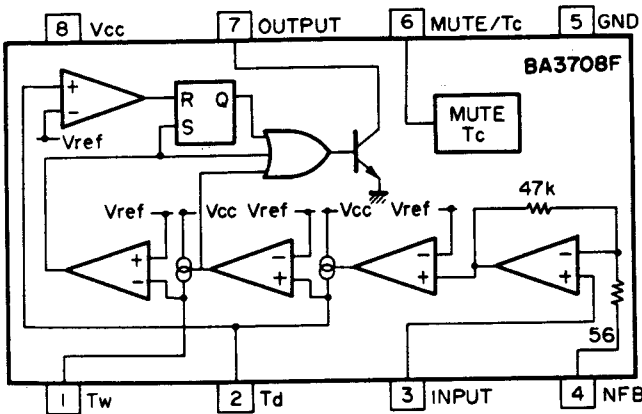
detection time T_c , this IC outputs a pulse, with a width of T_w , after a pulse delay time T_d has elapsed from the end of that signal. The output signal is the open collector signal which can drive the plunger directly.

It also has a mute function which forcibly stops the detection operation.



CIRCUIT DESCRIPTION

Block Diagram



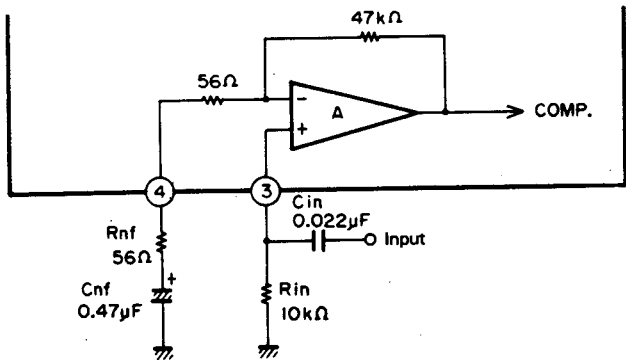
2. Connection of each pin

Pin No.	Pin Name	Operation Description
1	Tw (pulse width) pin	Connects the time constant Cw Rw
2	Td (pulse delay time) pin	Connects the time constant Cd Rd
3	Input pin	Inputs the audio signal (bias resistance is required)
4	NFB pin	Connects CR for NFB (DC cut is required)
5	GND pin	Connects to GND
6	Tc (music signal detection time) mute pin	Connects Cc and the mute switch
7	Output pin	Drives the plunger directly
8	Vcc pin	2.0 V ~ 5.0 V

3. Operations of each circuit

3-1. Input amp

The input amp consists of the differential amp of the PNP transistor, and the input pin (pin 3) should be directly grounded with the bias resistance of Rin. If this Rin is set to a larger value, the input offset occurs and the operation of the unit may become unstable. Special attention must be paid to this. The gain and the frequency response of this amp is determined by Cin, Rin, and Cnf, Rnf of the NFB pin (pin 4).



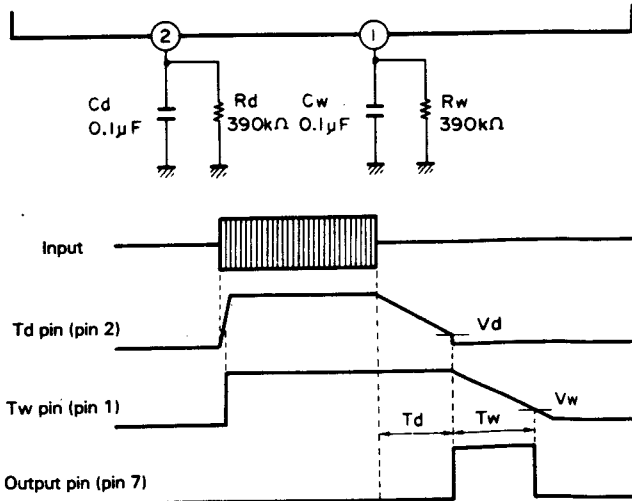
3-2. Pulse delay time Td and pulse width Tw

The time Td after the input signal stops, the pulse signal having the pulse width of Tw is output from the output pin (pin 7).

The values of Td and Tw are determined by the time constant of CR which is connected to pin 2 and pin 1 respectively.

$$T_d (\text{ms}) \approx 1.7 \times C_d (\mu\text{F}) \times R_d (\text{kohm})$$

$$T_w (\text{ms}) \approx 1.6 \times C_w (\mu\text{F}) \times R_w (\text{kohm})$$

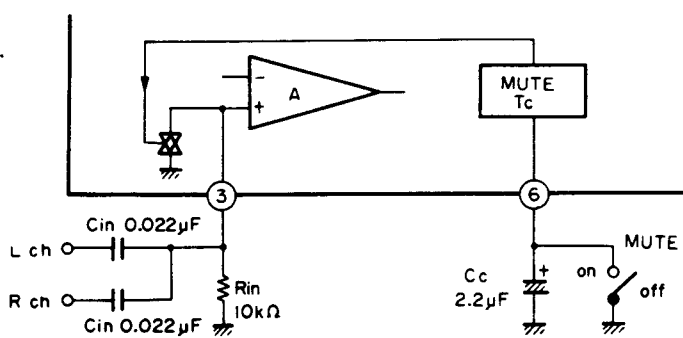


CIRCUIT DESCRIPTION

3-3. Music signal detection time T_c and the mute circuit

To prevent malfunction against any noise in the gap between tunes, a music signal detection function is incorporated into this unit. With this function, the plunger drive pulse is output only when the detected signal is longer than the music signal detection time T_c . Therefore, the pulse is not output when the detected signal is short (noise is present). The length of T_c is determined by the value of the capacitor C_c which is connected to pin 6.

Also, when pin 6 is grounded, the mute circuit is engaged to stop the between-tunes gap detection operation. In this case, the input resistance of the input pin (pin 3) is lowered (to approx. 1 kohm) to prevent deterioration of the crosstalk between channels of the L/R both-channel input system.

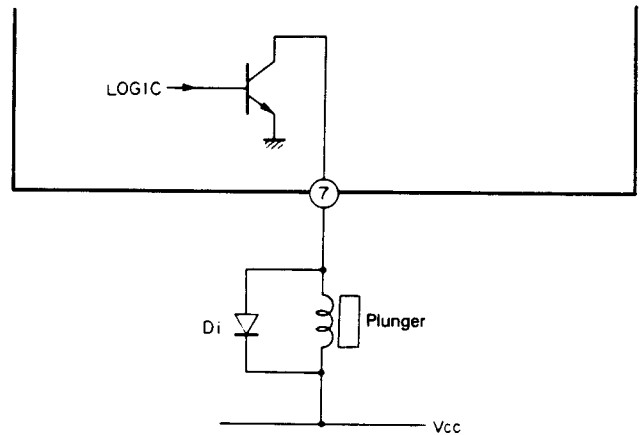


3-4. Output circuit

The output circuit is an open collector design, and is suitable for the situation in which the plunger is turned ON during searching operation. The maximum allowable driving signal is one having a pulse width T_w of 200 ms, duty cycle of 30 % and an output current I_o of 100 mA.

For the mute function, the output signal is turned OFF forcibly and the signal level becomes high.

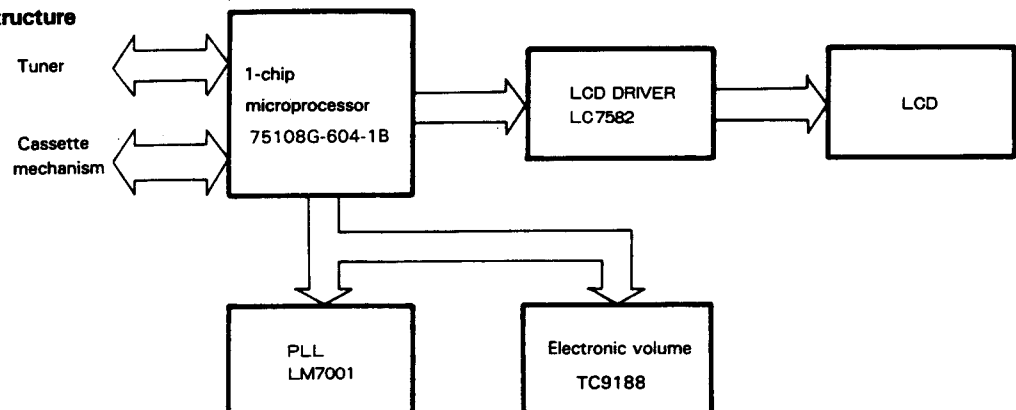
Since the IC might be damaged due to the counter electromotive force generated in the solenoid of the plunger, a discharging diode should be inserted in parallel to the solenoid.



CIRCUIT DESCRIPTION

μPD75108G-604-1B Microprocessor IC

1. Outline, Features and Structure



- Controls the PLL IC SANYO LM7001.
- Operates the LCD driver LC7582 with the signal having 1/2 bias in 1/2 duty.
- Operates the Volume, Tone, Balance, Fader, ATT (Attenuator), Loudness, and Boost controls, etc. using the electronic volume TC-9188. (Setting of Valid/invalid selection is made possible.)
- Clock function while displaying 12-hour system.
- Direct access using the numeric (10-key) keypad.
- Control function exclusively for the mechanism (CDS-50).
- Mutual reset function with the digital audio.
- SDK function
- Assuring the 2V backup function.

2. Term definition

- **Tuner Call:**
This is the function which allows listening to the radio while fast-forwarding or rewinding a tape.
- **Tuner Call ON:**
This is the condition that the tuner call function is possible.
- **During Tuner Call:**
This is the condition that the tuner call function is ON and the tape is fast-forwarded or rewound and, the radio sound should be output.

- **Last Channel:**

When the unit is turned OFF or is switched to tape mode, the frequency of the last received station is stored in the memory for each band (AM/FM).

When recalling a preset channel, the exact same frequency of the previously set station will be recalled. However, the "last channel's" frequency is not included in the preset channels.

- **Channel Edge**

Lowest channel edge: Single channel

Highest channel edge: 6-ch, 8-ch or 0-ch according to the microprocessor design (for each destination area).

- **SDK mode:**

The FM band status in which SK and DK detection is possible.

- **DK Input:**

DK signal input when SDK signal is present.

- **During DK Interrupt:**

In radio mode, the volume level is raised.

In tape mode, the radio interrupts with a raised volume level. Generally, the "DK Interrupt" function is active when a DK input is detected. However, since DK Interrupt may continue even when the DK input signal momentarily ceases.

CIRCUIT DESCRIPTION

3. Channel Plan

Receiving Frequency Range, Channel Spacing, Reference Frequency, and Intermediate Frequency

	Band	Receiving frequency range	Channel spacing		Reference frequency	Intermediate frequency	Local
			Auto	Manual			
U.S.A.	FM	87.9 ~ 107.9 MHz	200 kHz	—	25 kHz	10.7 MHz	Upper
	MW	530 ~ 1620 kHz	10 kHz	—	10 kHz	450 kHz	Upper
Europe	FM	87.5 ~ 108.0 MHz	50 kHz	25 kHz	25 kHz	10.7 MHz	Upper
	MW	531 ~ 1611 kHz	9 kHz	9 kHz	9 kHz	450 kHz	Upper
	LW	153 ~ 281 kHz	9 kHz	1 kHz	1 kHz	450 kHz	Upper
Middle and near East	FM	87.5 ~ 108.0 MHz	50 kHz	25 kHz	25 kHz	10.7 MHz	Upper
	MW	531 ~ 1611 kHz	9 kHz	—	9 kHz	450 kHz	Upper
Japan	FM	76.1 ~ 89.9 MHz	100 kHz	—	25 kHz	10.7 MHz	Lower
	MW	522 ~ 1629 kHz	9 kHz	—	9 kHz	450 kHz	Upper

f_{RF}f_{ref}

IF

Setting method of value N

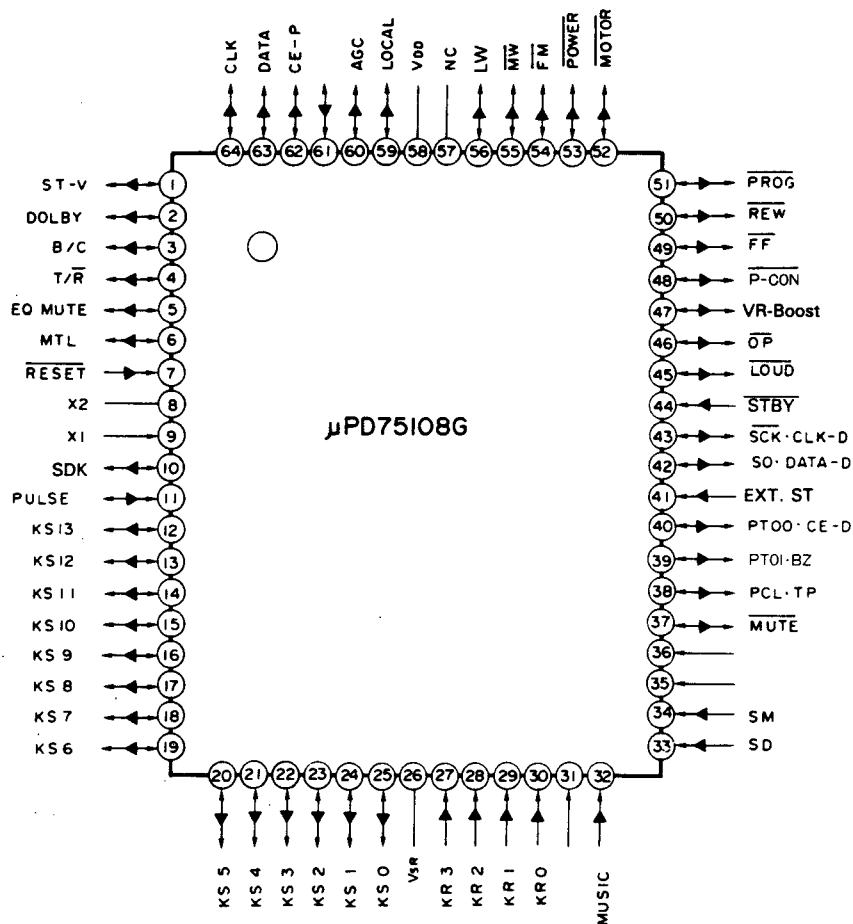
$$f_{osc} = f_{RF} - IF \text{ (Lower Local)}$$

$$f_{osc} = f_{RF} + IF \text{ (Upper Local)}$$

$$N = \frac{f_{osc}}{f_{ref}}$$

N: Number of divisions of the program divider

4. Port Assignment



* The pull-up resistor for the mask OP (pin 12 - 14) is not incorporated.

* The power-ON reset circuit and the power-On flag for the mask OP are not incorporated.

CIRCUIT DESCRIPTION

Output Port Description

Pin No.	Pin Name	Operation Description
1	ST-V	Strobe Pulse (for electronic volume). Active high.
2	DOLBY	DOLBY NR. Active high. (Should be OFF during tuner call or when DK interrupt is engaged.) Outputs the signal when DOLBY is ON. This is effective in the tape mode only. (In one case, it turns only DOLBY B ON, and in the other case, it turns ON for both DOLBY B and C.)
3	B/C	DOLBY C NR. Active high. (Should be OFF during tuner call or when DK interrupt is engaged.) Outputs the signal when DOLBY C is ON. This is effective in the tape mode only.
4	T/R	Tape/Radio selector. Tape: High In the tape mode, this outputs the high level signal. However, during tuner call or DK interrupt is engaged, it becomes low. (This output signal must not be cease due to tape/radio mode switching during DK interrupt operation.)
5	EQ MUTE	Tape Equalizer Mute Active high. In the tape mode, this outputs the high level signal when the tape is fast-forwarded or re-wound or in the pause mode.
6	MTL	Metal Tape Position Active high. In the tape mode, the signal is output when the METAL function is ON.
10	SDK	SDK Switch Active high. Outputs the signal when the SDK is ON (in either tape or radio mode). (Output signal should not cease even when the mode is changed over with SDK ON.)
12 25	KS	Key Source signal Active high.
37	MUTE	Audio Mute output Active low.
38	T.P.	Test Point, System Clock Active high. This outputs the pulse which is divides the reference oscillator frequency into 8. Used for fine adjustment of the reference clock. It is output only when the ACC is OFF and the power is OFF.
39	BZ	Buzzer output Active high. This outputs a pulse of 2.7 kHz for 60 ms when required. This buzzer tone may be output twice with an interval of 190 ms.

Pin No.	Pin Name	Operation Description
40	CE-D	CHIP ENABLE for DISPLAY Active "H"
42	DATA-D	SERIAL DATA for DISPLAY Active "H"
43	CLK-D	CLOCK PULSE for DISPLAY Active "L"
45	LOUD	Loudness Active low. With power ON, when the loudness switch is set to ON, this output becomes low.
46	OP	Option Active low. With power ON, when the option is set ON, this port becomes low.
47	VR-BOOST	Volume Boost output Active low. Enable only when power is ON. Becomes low when the noise switch is ON (only when no SDK signal is present.) Becomes low during DK interrupt (only when the SDK signal is present.)
48	P-CON	Outputs the power control signal (for the subsequent models). Active low.
49	FF	Outputs the fast forward solenoid control signal. Active low. Effective only in the tape mode.
50	REW	Outputs the rewind solenoid control signal. Active low. Effective only in the tape mode.
51	PLAY/ PROG	Outputs the Play/Program solenoid control signal. Active low. Effective only in the tape mode.
52	MOTOR	Motor Drive Active low. Effective in the tape mode only. It becomes low when the motor is rotated.
53	POWER	Power Control of this unit. Active low. It is always low with the power ON.
54	FM	FM Band output Active low. During tuner call in both radio and tape modes, this outputs a low level signal when the band is set to FM with the SDK signal ON.
55	MW	MW Band output Active low. During tuner call in both radio and tape modes, this outputs a low level signal when the band is set to MW with the SDK signal ON.

CIRCUIT DESCRIPTION

Pin No.	Pin Name	Operation Description
56	LW	LW Band output Active low. When LW is available: This outputs a low level signal when the radio band is set to LW in both the radio and tape modes. When LW is not available: During tuner call in both radio and tape modes, this outputs a low level signal when the "AUTO" is ON, regardless of the band switch.
59	LOCAL	Local/DX output Local: high, DX: low During tuner call in both radio and tape modes, this outputs a high level signal when the local switch is set ON.
60	AGC CUT	Output for AGC Cut Active high.
62	CE-P	Chip Enable for PLL Outputs the serial data of the PLL IC, and CE signal output. Active high.
63	DATA	Data for PLL & Volume Outputs the data for PLL IC, electronic volume and serial data. Active high.
64	CLK	Clock-pulse for PLL & Volume Outputs the clock (CLK) pulse for PLL IC, electronic volume and serial data. Active high.

Input Port Description

Pin No.	Pin Name	Operation Description
7	RESET	Reset input Active low. Input signal for initialization or releasing the STBY (standby) mode.
27 30	KR	Key Return input Active high.
11	PULSE	Reel Pulse detection input Active high. Used for rotation detection of the mechanism.
32	MUSIC	Music Signal Sensor Active high. $V_{fh} = 5 \times \frac{7+0.5}{16} = 2.34375V$ Low: input voltage $0 < L < 0.3$ High: input voltage $2.0 < H < VDD$ Variable area $0.3 < X < 2.0$ When this input signal is inverted from high to low during tape winding, the fast-forwarding/rewinding mode is released, then the unit enters play mode.
33	SD	Station Detector Active high. $V_{fh} = 5 \times \frac{7+0.5}{16} = 2.34375V$ Used to search for broadcasting stations in auto tuning mode, and for start detection for ABSS search operation. And when this port is at low level, the illumination of the signal meter will go off. Low: input voltage $0 < L < 0.3$ High: input voltage $2.0 < H < VDD$ Variable area $0.3 < X < 2.0$
34	SM	Signal Meter input A/D input. Lights up the 5-point bar-type level meter according to the input voltage. This functions only when SD is high.
41	EXT RST	External Reset input Active high. On the reset signal input, when this input signal is high, the unit is always initialized.
44	STBY	Standby Mode detection input Active low, INT After interruption occurs or after reset is released, when this port is low, the unit enters the standby mode. After reset is released, when this port is high, the standby mode is released.
61	IGN	Ignition Switch detection input Active high. Goes high when the ignition key is turned ON. If this input signal is low, power is always OFF. If this input signal is high, switching the power between ON and OFF is made possible. However, if the power switch using the touch-sensor key is not used, power is turned ON when this input signal becomes high.

CIRCUIT DESCRIPTION

5. Key Matrix

	KR 3 (27)	KR 2 (28)	KR 1 (29)	KR 0 (30)	
KS 0 (25)	V DOWN (Electronic volume)	V UP (Electronic volume)	V ATT (Electronic volume)		Momentary keys
1 (24)	TONE (Electronic volume)	POSITION (Electronic volume)	LOUD		
2 (23)	SDK (E)		FM	AM	
3 (22)	LOCAL	AUTO	ABSS	P-SCAN/ EJECT	
4 (21)	SA/PLAY. PROG			OP	
5 (20)			DOWN/REW.	UP/FF	
6 (19)	1/METAL	2/T-ADV	3/T-CALL	4/DOLBY-B	
7 (18)	5/DOLBY-C	6	7	8	
8 (17)	9	0	DIRECT		Alternate keys
9 (16)		PACK IN EJECT	FWD/RVS	SKL (E)	
10 (15)	DAR	DK (E)	SK (E)	ST	
11 (14)	POWER A	POWER B			Initializing diode switch
12 (13)	BAND A	BAND B	FM2 BAND	SDK (E)	
13 (12)			DOLBY	E VOL	

The value in the bracket () shows the pin number.

CIRCUIT DESCRIPTION

Momentary Keys

Name	Operation Description
ATT	Attenuate Switch Depending on the initial setting, this key may also be used for POWER ON/OFF function. In this case, reading is performed at the power OFF? (boot down?).
V UP	Volume Up Switch Depending on the initial setting, this key may also be used for the POWER ON function.
V DOWN	Volume Down Switch Depending on the initial setting, this key may also be used for the POWER OFF function.
LOUD	LOUDNESS SW
POSITION	Balance/Fader adjustment, Display select switch
TONE	Bass/Treble adjustment, Display select switch
AM	AM Band call switch If "LW" band is provided, this is also used for selection between MW and LW band.
FM	FM Band call switch
SDK	SDK mode call key Calling of the SDK mode is also possible in tape mode.
P-SCAN/EJECT	P-Scan key in radio mode, and Eject key in tape mode.
ABSS	ABSS ON/OFF Key (SDK OFF, RADIO MODE) SK SEEK Key (SDK ON, TAPE or RADIO MODE)
AUTO	Auto Tuning ON/OFF key. This is effective only in radio mode.
LOCAL	Local ON/OFF key. Effective during T-Call or SDK mode in either radio or tape mode.
ME	PRESET MEMORY ENABLE Key
SEEK	Up Seek key. Functions as SK Seek in SDK mode.
SA/PLAY PROG	Sequential Access key in radio mode. PLAY/PROGRAM key in tape mode.
UP/FF	Auto/Manual Up tuning key in radio mode. Fast-Forward key in tape mode.
DOWN/REW	Auto/Manual Down tuning key in radio mode. Rewind key in tape mode.

Name	Operation Description
1/METAL	1-ch recall and memory write key in radio mode. Metal tape ON/OFF key in tape mode.
2/T.ADV	2-ch recall and memory write key in radio or tape. Tape Advance ON/OFF key in tape mode.
3/T-CALL	3-ch recall and memory write key in radio mode. Tuner Call ON/OFF key in tape mode.
4/DOLBY-B	4-ch recall and memory write key in radio mode. DOLBY B-type select key (changeable by the initial setting of "DOLBY") in tape mode.
5/DOLBY-C	5-ch recall and memory write key in radio mode. DOLBY C-type select key (changeable by the initial setting of "DOLBY") in tape mode.
6~0	Channel recall and memory write keys for 6-ch to 0-ch in radio mode. However, the keys from 7 through 0 may be invalid depending on the initial setting of "CHA" and "CHB".
DIRECT	Direct Access Enable key This key is effective only when all 10 numeric keys are enabled by the initial setting of "CHA" and "CHB".
OP	OPTION SW

Alternate Keys

Name	Operation Description
FWD/RVS	Forward/Reverse detection switch ON: Forward, OFF: Reverse
EJECT/PACK IN	Pack In/Eject operation detection switch Active high.
ST	Stereo broadcast detection input Active high.
D.A.R.	Digital Audio Reset Digital audio operation detection input. Active high.
SK	SK station detection input (concerning SK Seek operation) Active high.
DK/Noise	DK broadcast/external noise detection input Active high.
SKL	SK station detection (for lighting the SK display) Active high.

CIRCUIT DESCRIPTION

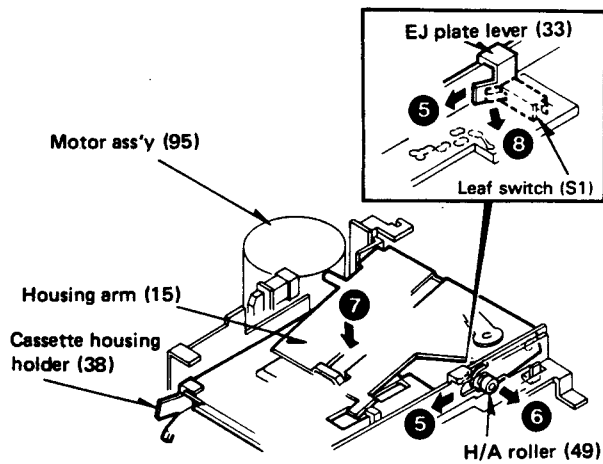
Initial Setting of Diode Switches

Name	Function Description																
BAND A BAND B	<p>Selection of model version (for different destination)</p> <table><tr><th>BAND A</th><th>BAND B</th><th>Destination</th></tr><tr><td>OFF</td><td>OFF</td><td>U.S.</td></tr><tr><td>OFF</td><td>ON</td><td>Japan</td></tr><tr><td>ON</td><td>OFF</td><td>Europe (with LW band)</td></tr><tr><td>ON</td><td>ON</td><td>Middle East, and Europe (without LW band)</td></tr></table> <p>* However, if the unit is set for the version for U.S., Middle East or Europe (without LW), it can be changed again, by the user, within these three settings when POWER ON.</p>	BAND A	BAND B	Destination	OFF	OFF	U.S.	OFF	ON	Japan	ON	OFF	Europe (with LW band)	ON	ON	Middle East, and Europe (without LW band)	
BAND A	BAND B	Destination															
OFF	OFF	U.S.															
OFF	ON	Japan															
ON	OFF	Europe (with LW band)															
ON	ON	Middle East, and Europe (without LW band)															
CH A CH B	<p>Selection of the number of the preset channels Selections for the direct access function</p> <table><tr><th>CH A</th><th>CH B</th><th>Number of channels</th><th>Direct access function</th></tr><tr><td>OFF</td><td>OFF</td><td>10</td><td>Available</td></tr><tr><td>OFF</td><td>ON</td><td>8</td><td>Not available</td></tr><tr><td>ON</td><td>DON'T CARE</td><td>6</td><td>Not available</td></tr></table>	CH A	CH B	Number of channels	Direct access function	OFF	OFF	10	Available	OFF	ON	8	Not available	ON	DON'T CARE	6	Not available
CH A	CH B	Number of channels	Direct access function														
OFF	OFF	10	Available														
OFF	ON	8	Not available														
ON	DON'T CARE	6	Not available														
POWER A POWER B	<p>Selection of Power ON/OFF method</p> <table><tr><th>POWER A</th><th>POWER B</th><th>Power ON/OFF method</th></tr><tr><td>OFF</td><td>OFF</td><td>By means of VATT key. POWER key is always invalid.</td></tr><tr><td>ON</td><td>OFF</td><td>Not by the momentary key. POWER key is always invalid. By means of the IGN port.</td></tr></table>	POWER A	POWER B	Power ON/OFF method	OFF	OFF	By means of VATT key. POWER key is always invalid.	ON	OFF	Not by the momentary key. POWER key is always invalid. By means of the IGN port.							
POWER A	POWER B	Power ON/OFF method															
OFF	OFF	By means of VATT key. POWER key is always invalid.															
ON	OFF	Not by the momentary key. POWER key is always invalid. By means of the IGN port.															
FM 2 BAND	<p>Selection of the number of memories for FM</p> <table><tr><th>FM 2 BAND</th><th>Number of bands</th><th>FM BAND display</th><th>Number of memories</th></tr><tr><td>OFF</td><td>2</td><td>FM 1, 2</td><td>Double of the number selected by "CH A" and "CH B"</td></tr></table>	FM 2 BAND	Number of bands	FM BAND display	Number of memories	OFF	2	FM 1, 2	Double of the number selected by "CH A" and "CH B"								
FM 2 BAND	Number of bands	FM BAND display	Number of memories														
OFF	2	FM 1, 2	Double of the number selected by "CH A" and "CH B"														
SDK	<p>Selection of SDK function, and Noise—Volume Boost function This function is effective only when the BAND A and BAND B are set to the destination for Europe, Middle East or Europe (without LW). Therefore, when the unit is changed from the U.S. version to the Middle East or Europe (without LW) by the user, this function is invalid.</p> <table><tr><th>SDK</th><th>SDK function</th><th>Noise—Volume Boost function</th></tr><tr><td>ON</td><td>Available</td><td>Not available</td></tr><tr><td>OFF</td><td>Not available</td><td>Available</td></tr></table>	SDK	SDK function	Noise—Volume Boost function	ON	Available	Not available	OFF	Not available	Available							
SDK	SDK function	Noise—Volume Boost function															
ON	Available	Not available															
OFF	Not available	Available															
DOLBY	<p>Selection system of the DOLBY NR switch</p> <table><tr><th>DOLBY</th><th>Switching system</th></tr><tr><td>ON</td><td>Without DOLBY-C</td></tr><tr><td>OFF</td><td>DOLBY-B/C mutual reset</td></tr></table>	DOLBY	Switching system	ON	Without DOLBY-C	OFF	DOLBY-B/C mutual reset										
DOLBY	Switching system																
ON	Without DOLBY-C																
OFF	DOLBY-B/C mutual reset																
E VSL	<p>ON/OFF selection of the electronic volume control function</p> <table><tr><th>E VOL</th><th>Electronic volume control function</th></tr><tr><td>ON</td><td>Available</td></tr><tr><td>OFF</td><td>Not available</td></tr></table>	E VOL	Electronic volume control function	ON	Available	OFF	Not available										
E VOL	Electronic volume control function																
ON	Available																
OFF	Not available																

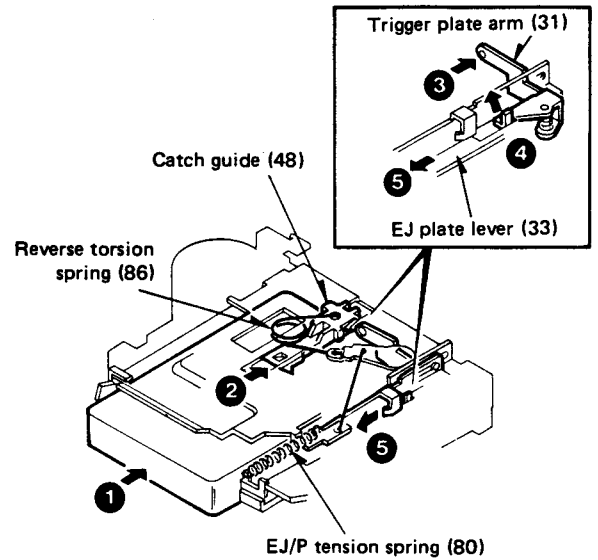
MECHANISM DESCRIPTION

1. Loading

If the cassette tape is pressed by the finger, the catch guide (48) is pushed in and the reverse torsion spring (86) is set on the loading side. If the cassette is pushed into the end, the trigger plate arm (31) rotates and the EJ plate lever (33) is released. Then, EJ/P tension spring (80) pulls the EJ plate lever (33) and the housing arm (15) and cassette housing holder (38) are pushed down through the H/A roller (49). The head plate (803) is also moved to the mode plate lever ass'y (9). The leaf switch (S1) is also pressed. At this time, the plunger solenoid (103) is turned on and the motor ass'y (95) rotates.



Note : The number in the parentheses refer to the Ref. Nos. in the exploded view. (P. 43)



MECHANISM DESCRIPTION

2. PLAY

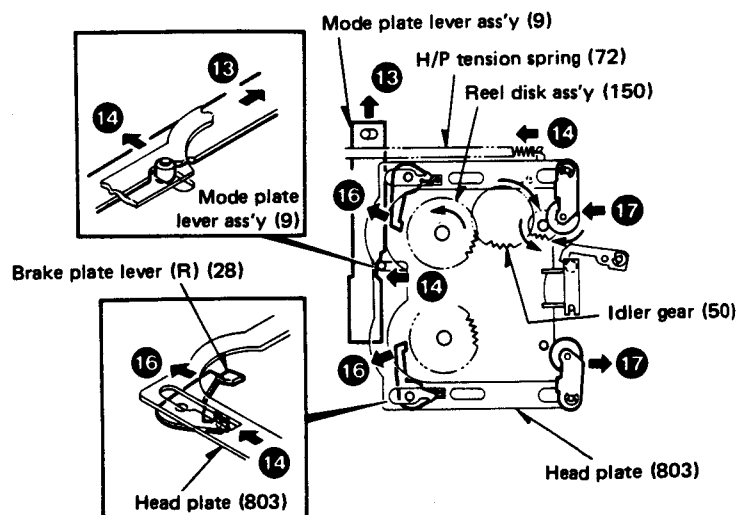
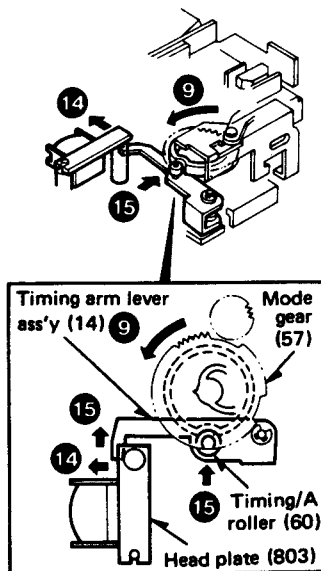
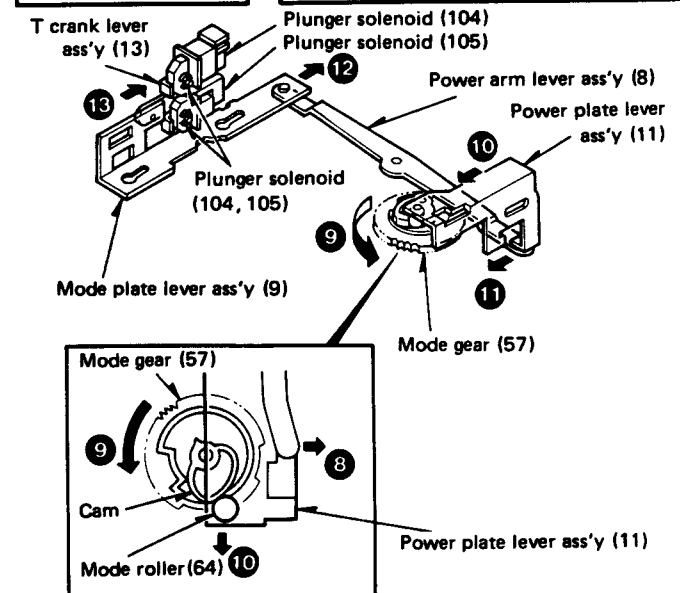
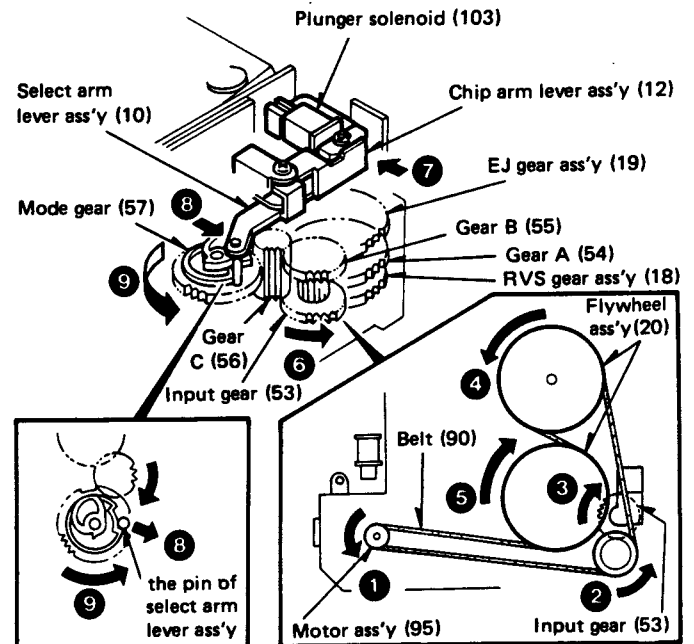
The rotation of the motor ass'y (95) is transmitted through the belt (90) to the flywheel ass'y (20) to rotate the input gear (53). Next, gear A (54), gear B (55), and gear C (56) rotate. Then, the EJ gear ass'y (19) rotates to move the select arm lever ass'y (10) to the plunger solenoid (104, 105) side. As the result, the chip arm lever ass'y (12) is attracted by the plunger solenoid (103).

The other pin of the select arm lever ass'y (10) releases the mode gear (57). The mode gear (57) is rotated by gear C (56), and the power plate lever ass'y (11) is moved forward by the cam of the mode gear (57) through the mode roller (64). At the same time, the mode plate lever ass'y (9) is moved backward through the power arm lever ass'y (8). The mode plate lever ass'y (9) is attracted by the FF and REW solenoid (104, 105) through the T crank lever ass'y (13).

After the above operation, timing/A roller (60) of the timing arm lever ass'y (14) under the mode gear (57) is put in the groove of the cam of mode gear (57) to lock the gear. By this operation of the timing arm lever ass'y (14), the head plate (803) is pulled by the H/P tension spring (72) to the PLAY position.

The rotation of the flywheel ass'y (20) is transmitted from the inside gear to the idler gear (50) and reel disk ass'y (150). The brake plate levers (27, 28) applied to the reel disk ass'y (150) has been released by the head plate. In the PLAY mode, the mode gear (57), EJ gear ass'y (19), and RVS gear ass'y (18) are locked by the notches.

Note : If the power tension spring (84) is removed, the mechanism can be checked easily.

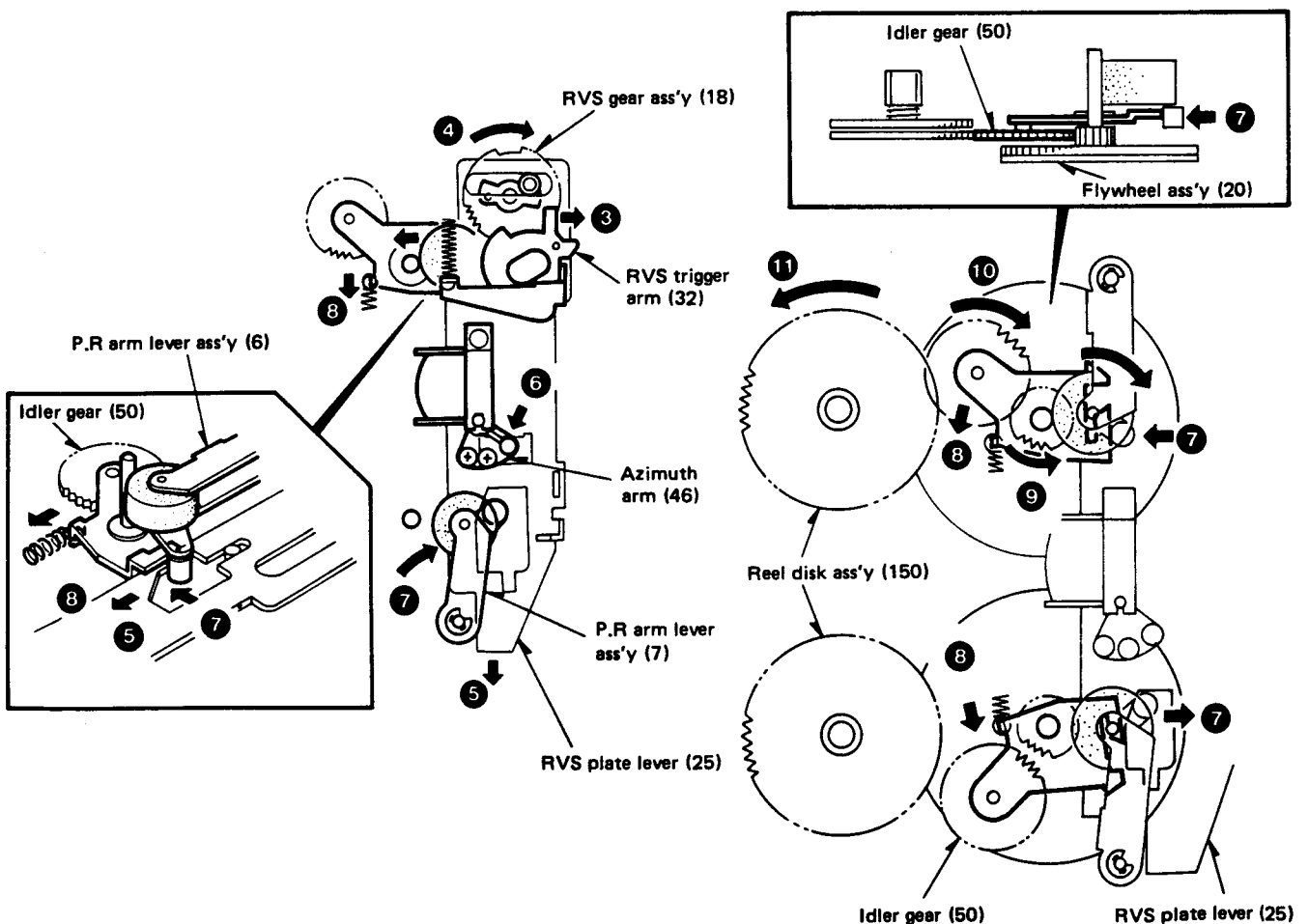
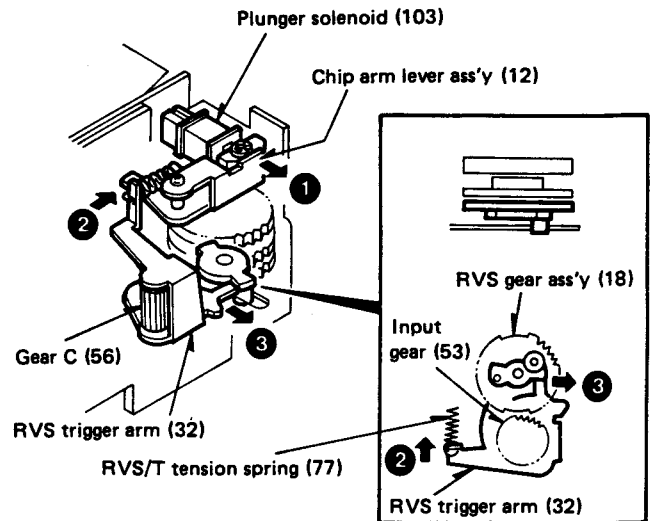


MECHANISM DESCRIPTION

3. PROG.

If the program button is pressed, the plunger solenoid (103) is turned off and the chip arm lever ass'y (12) is moved outward. At the same time, the RVS trigger arm (32) releases the RVS gear ass'y (18) through the RVS/T tension spring (77). Then, the RVS gear ass'y (18) is rotated a half turn by the input gear (53), and the RVS plate lever (25) is moved. At this time, the RVS trigger arm (32) is set to the lock side by the RVS gear ass'y (18), then the chip arm lever ass'y (12) is attracted again by the plunger solenoid (103) because of the force of the chip arm tension spring (78).

The RVS plate lever (25) moves the head slide switch (S2), azimuth arm (46), and P.R arm lever ass'y (6, 7). The P.R arm lever ass'y (6, 7) moves the idler gear (50) through the idler gear arm of the main chassis ass'y (801).



MECHANISM DESCRIPTION

4. FF/REW

If FF or REW button is pressed, the plunger solenoid (104) or (105) is turned off depending on the direction of PLAY, and the T crank lever ass'y (13) is rotated by the force of the power tension spring (84). At this time, the head plate (803) is moved a little backward by the movement of the mode plate lever ass'y (9). The FF crank arm (45) is rotated by the T crank lever ass'y (13) to slide the FF plate lever (26) and rotate the FF arm lever ass'y (5). Then, the rotation of the flywheel ass'y (20) is transmitted to the reel disk ass'y (150) through the FF gear ass'y (17).

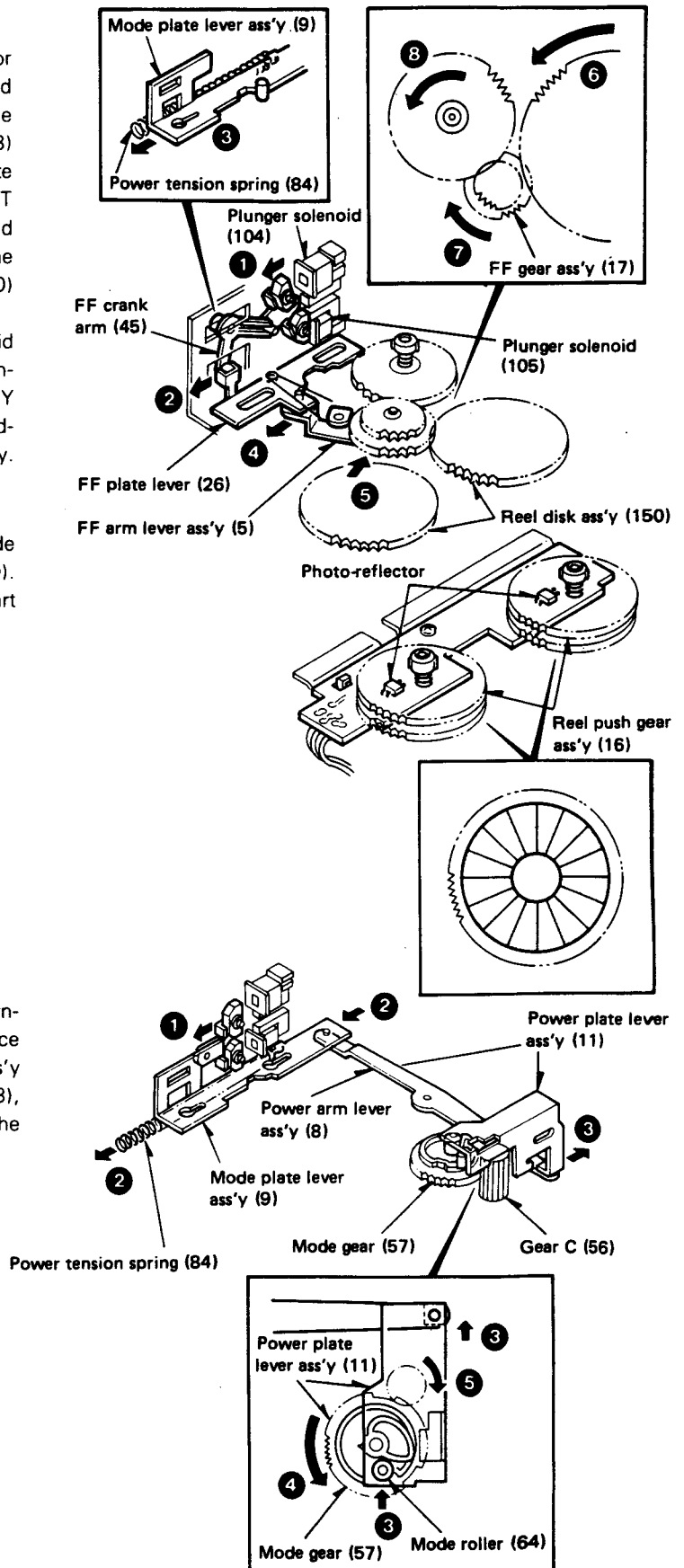
If the PLAY/PROG. button is pressed, both plunger solenoid (104, 105) are turned off and the head plate (803) is returned to the position after the loading, then it is reset to the PLAY mode by the rotation of the motor ass'y (95). The tape advancing and index scanning operation is performed similarly.

5. Automatic reverse

The rotation is sensed by the photo-reflector on the back side of the reel push gear ass'y (16) of the reel disk ass'y (150). The sensed signal is input to the mechanism control IC to start the program.

6. Eject

If the eject button is pressed, all the plunger solenoid are turned off. The head plate (803) is moved backward by the force of the power tension spring (84). The power plate lever ass'y (11) is pushed back through the power arm lever ass'y (8), and the mode gear (57) is meshed with gear C (56) by the mode roller (64).



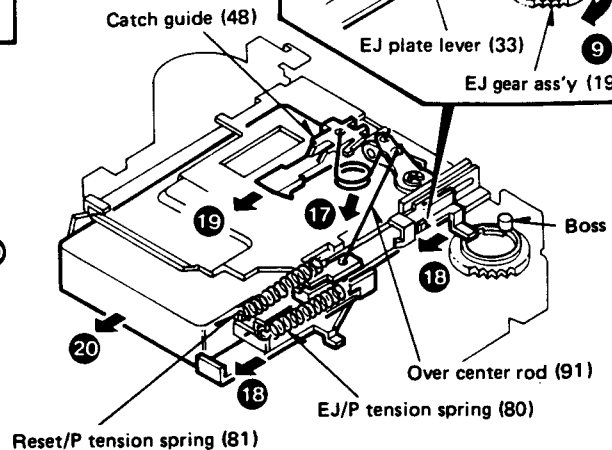
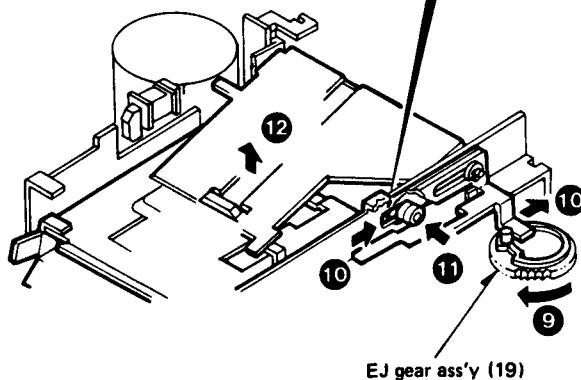
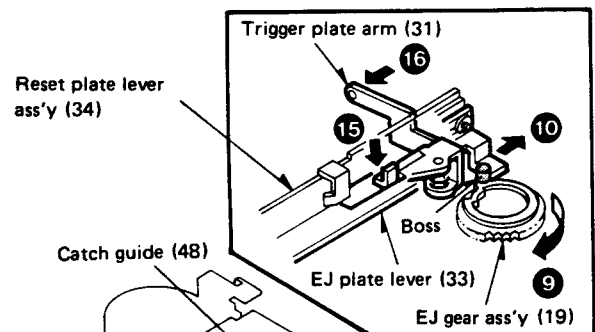
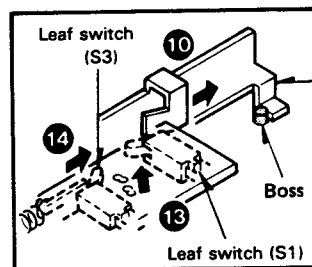
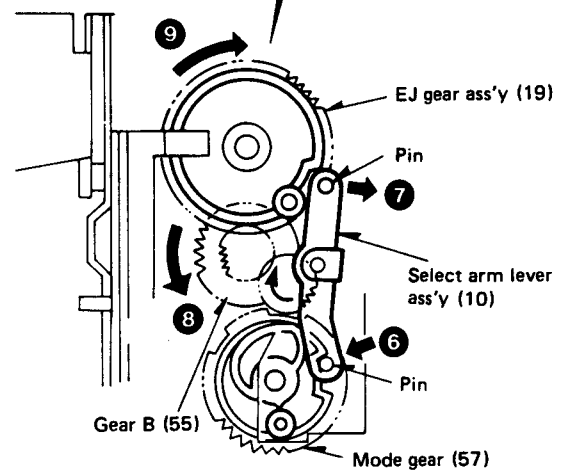
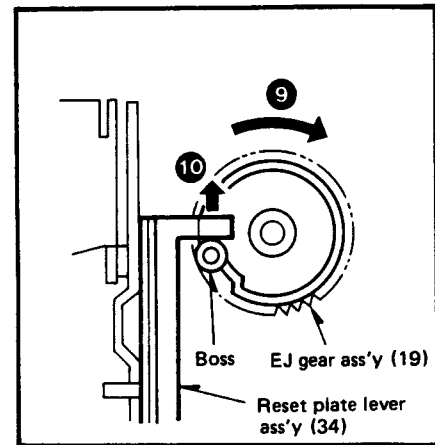
MECHANISM DESCRIPTION

The mode gear (57) is rotated and the pin of the select arm lever ass'y (10) is put in the groove of the peripheral cam of the mode gear. Then, the EJ gear ass'y (19) is meshed with gear B (55) and rotated by releasing the other pin of the select arm lever ass'y (10). The reset plate lever ass'y (34) is moved back by the upper boss of the EJ gear ass'y (19) to turn on the leaf switch (100) for ejection to turn on the motor.

At the same time, the EJ plate lever (33) is also moved back and fixed to the trigger plate arm (31) through the tension spring (87) for preventing an overload. While the reset plate lever ass'y (34) is moving back, the catch guide (48) is pushed forward through the over center rod (91). At this time, the cassette housing holder (38) is lifted by the EJ plate lever (33).

Then, the EJ gear ass'y (19) rotates. When its boss is parted from the reset plate lever ass'y (34), the reset plate lever ass'y (34) is returned to the forward position by the reset/P tension spring (81). At this time, the over center rod (91) is pulled, and the catch guide (48) is moved forward to discharge the cassette.

Even if the power switch is turned off, the loading operation can be performed, but the mechanism is set to the ejection mode immediately, because the loading mechanism is turned on by the leaf switch (S1) and the motor is turned on by the leaf switch (S3) to start the ejection operation.



ADJUSTMENT

Set the controls and switches as follows.

BALANCE :center position LOUD :OFF LOCAL :OFF
 FADER :center position T-ADV :OFF AUTO :OFF
 BASS :center position METAL :OFF
 TREBLE :center position DOLBY NR :OFF

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER(RECEIVER) SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION							
1	DISCRIMINATOR	(A) 98.1MHz 0 dev 60dBμ(Ant input)	Connect the DC voltmeter between pins of CN3	FM 98.1MHz	L1 (X05)	0V	(a)
2	SEPARATION	(C) 98.1MHz 1kHz, ±33.5kHz dev Pilot: ±7.5kHz dev Selector: L or R 60dBμ(Ant input)	(B)	FM 98.1MHz	VR4 (X05)	Adjust it so that the crosstalk from L to R and R to L become minimum.	
3	ANRC	(C) 98.1MHz 1kHz, ±33.5kHz dev Pilot: ±7.5kHz dev Selector: L or R 35dBμ(Ant input)	(B)	FM 98.1MHz	VR1 (X05)	Separation 10dB	
4	SEEK STOP LEVEL	(A) 98.1MHz 1kHz, ±40kHz dev 20dBμ(Ant input)	—	FM SEEK: ON 98.1MHz	VR2 (X14)	STOP	
5	SOFT MUTE LEVEL	(A) 98.1MHz 1kHz, ±40kHz dev 60dBμ→No input	(B)	FM 98.1kHz	VR3 (X05)	Output Noise level -25dBμ (When not add any signal to ANT terminal)	
SDK SECTION							
6	DK LEVEL	(E) 98.1MHz 0 mod SK 5.33% DK 30% BK 60% 60dBμ(Ant input)	Connect the DC voltmeter between pins of CN2	FM 98.1MHz SDK: OFF	L1 VR1 (X13)	Maximum	(b)
7	SDK VOLUME LEVEL	(E) 98.1MHz 1kHz, ±40kHz dev SK 5.33% DK 30% BK 60% 60dBμ(Ant input)	(B)	FM 98.1MHz VOLUME: 0	VR4 (X11)	400mV	(c)
AM SECTION							
(1)	STOP LEVEL	(D) 990kHz 400Hz, 30% mod 35dBμ(Ant input)	—	AM 990kHz	VR3 (X14)	STOP	
CASSETTE DECK SECTION							
[1]	AZIMUTH	MTT-114 10kHz	(B)	TAPE PLAY	Head Azimuth Screw	Adjust the azimuth for each L CH/R CH or FWD/RVS becomes maximum.	(d)
[2]	PLAYBACK LEVEL	MTT-150	Connect a AC voltmeter to CN4.	TAPE PLAY	VR1(L) VR2(R) (X08)	452mV	(e)

REGLAGES

Régler les contrôles et les boutons comme suit.

BALANCE :position centre LOUD :OFF LOCAL :OFF
 FADER :position centre T·ADV :OFF AUTO :OFF
 BASS :position centre METAL :OFF
 TREBLE :position centre DOLBY NR :OFF

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DU TUNER (AMPLI TUNER)	POINTS DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION MF							
1	DISCRIMINATEUR	(A) 98.1MHz 0 dév 60dBμ(Entrée ANT)	Raccorder le voltmètre CC entre les deux broches de CN3.	FM 98.1MHz	L1 (X05)	0V	(a)
2	SEPARATION	(C) 98.1MHz 1kHz.±33.5kHz dév Pilote:±7.5kHz dév Selecteur:L ou R 60dBμ(Entrée ANT)	(B)	FM 98.1MHz	VR4 (X05)	Le régler de manière à ce que la diaphonie de L à R et de R à L devienne minimum.	
3	ANRC	(C) 98.1kHz 1kHz.±33.5kHz dév Pilote:±7.5kHz dév Selecteur:L ou R 35dBμ(Entrée ANT)	(B)	FM 98.1MHz	VR1 (X05)	Séparation 10dB	
4	NIVEAU DE CHERCHER D'ARRET	(A) 98.1MHz 1kHz.±40kHz dév 20dBμ(Entrée ANT)	-	FM CHERCHER:ON 98.1MHz	VR2 (X14)	ARRET	
5	NIVEAU DE SOFT MUTE	(A) 98.1MHz 1kHz.±40kHz dév 60dBμ→Entrée NO	(B)	FM 98.1MHz	VR3 (X05)	Bruit de niveau de sortie -25dBμ (Sous non correspondance d'antenne.)	
SECTION SDK							
6	NIVEAU DE DK	(E) 98.1MHz 0 mod SK 5.33% DK 30% BK 60% 60dBμ(Entrée ANT)	Raccorder le voltmètre CC entre les deux broches de CN2.	FM 98.1MHz SDK:OFF	L1 VR1 (X13)	Maximale	(b)
7	NIVEAU DE SDK VOLUME	(E) 98.1MHz 1kHz.±40kHz dev SK 5.33% DK 30% BK 60% 60dBμ(Entrée ANT)	(B)	FM 98.1MHz VOLUME:0	VR4 (X11)	400mV	(c)
SECTION MA							
(1)	NIVEAU D'ARRET	(D) 990kHz 400Hz. 30% mod 35dBμ(Entrée ANT)	-	AM 990kHz	VR3 (X14)	ARRET	
SECTION DU MAGNETPHONE							
[1]	AZIMUTH	MTT-114 10kHz	(B)	Lecture bande	Vis d'azimut de tête	Ajuster l'azimut pour que chaque L-CH/R-CH ou FWD/RVS devienne maximum.	(d)
[2]	NIVEAU DE LECTURE	MTT-150	Connecter un voltmeter CA les CN4.	Lecture bande	VR1(G) VR2(D) (X08)	452mV	(e)

ABGLEICH

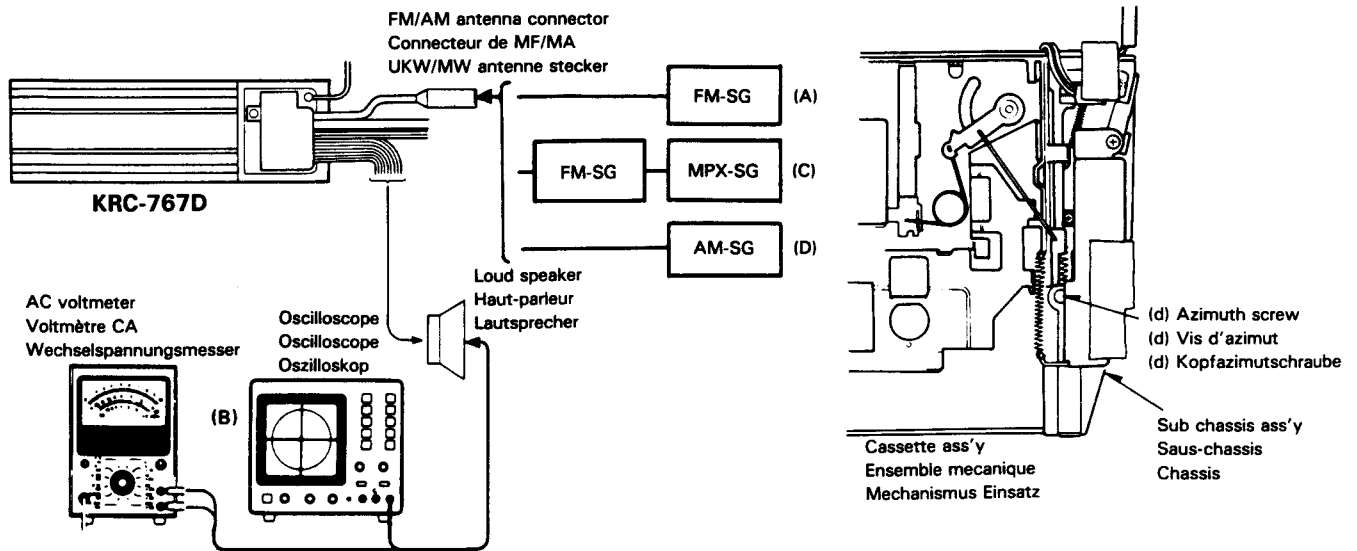
Die Regler und Knöpfe wie folgt einstellen.

BALANCE :Mittelage LOUD :OFF LOCAL :OFF
 FADER :Mittelage T-ADV :OFF AUTO :OFF
 BASS :Mittelage METAL :OFF
 TREBLE :Mittelage DOLBY NR :OFF

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	TUNER(RECEIVER)-EINSTELLUNG	ABGLEICH PUNKTE	ABGLEICHEN FÜR	ABB.
UKW-ABTEILUNG							
1	DISKRIMINATOR	(A) 98,1MHz 0 Hub 60dBμ(Ant-Eingang)	Den Gleichstrom-Voltmeter zwischen den beiden Stiften von CN3 anschließen.	FM 98,1MHz	L1 (X05)	0V	(a)
2	STEREO KANAL TRENNUNG	(C) 98,1MHz 1kHz.±33,5kHz Hub Pilot:±7,5kHz Hub Wahler:L or R 60dBμ(Ant-Eingang)	(B)	FM 98,1MHz	VR4 (X05)	So einstellen, daß das Übersprechen von L auf R und von R auf L minimal wird.	
3	ANRC	(C) 98,1MHz 1kHz.±33,5kHz Hub Pilot:±7,5kHz Hub Wahler:L or R 35dBμ(Ant-Eingang)	(B)	FM 98,1MHz	VR1 (X05)	Trennung 10dB	
4	SUCHEN HALT PEGEL	(A) 98,1MHz 1kHz.±40kHz Hub 20dBμ(Ant-Eingang)	-	FM SUCHEN:ON 98,1MHz	VR2 (X14)	HALT	
5	SOFT MUTE PEGEL	(A) 98,1MHz 1kHz.±40kHz Hub 60dBμ→No Eingang	(B)	FM 98,1MHz	VR3 (X05)	Ausgang Geräusch pegel -25dBμ (Wenn Antenna Stecker Nicht anschließen.)	
SDK-ABTEILUNG							
6	DK PEGEL	(E) 98,1MHz 0 mod SK 5,33% DK 30% BK 60% 60dBμ(Ant-Eingang)	Den Gleichstrom-Voltmeter zwischen den beiden Stiften von CN2 anschließen.	FM 98,1MHz SDK:OFF	L1 VR1 (X13)	Maximale	(b)
7	SDK LAUTSTÄRKE PEGEL	(E) 98,1MHz 1kHz.±40kHz dev SK 5,33% DK 30% BK 60% 60dBμ(Ant-Eingang)	(B)	FM 98,1MHz VOLUME:0	VR4 (X11)	400mV	(c)
MW-ABTEILUNG							
(1)	HALT PEGEL	(D) 990kHz 400Hz. 30% mod 35dBμ(Ant-Eingang)	-	MW 990kHz	VR3 (X14)	HALT	
CASSETTEN-DECK-ABTEILUNG							
[1]	AZIMUTH	MTT-114 10kHz	(B)	Bandwiedergabe	Kopfazimutschraube	So einstellen, daß das Azimuth für jeweils L-CH/R-CH oder FWD/RVS maximal wird.	(d)
[2]	WIDERGABE PEGEL	MTT-150	Einen Wechselspannungsmesser zwischen zu CN4 anschließen.	Bandwiedergabe	VR1(L) VR2(R) (X08)	452mV	(e)

ADJUSTMENT/REGLAGES/ABGLEICH/VOLTAGE TABLES

Adjustment/reglages/abgleich



Voltage tables

(X05-3362-70, 2-71)

TR1	E	—
	C	9.5V
	B	—

IC	4	9.5V
	14	9.5V

IC1	2	0V
	4	2.8V
	5	0V
	6	5.8V
	7-9	5.2V
	10	0V
	12	5.0V
	14	0.7V
	15	2.0V
	16	5.2V

IC2	1	9.5V
	2	4.4V
	4	3.6V
	5	4.8V
	6-9	0V
	10	0.7V
	11	4.4V
	12	3.5V
	13	3.5V
	14	0V
	15	3.5V
	16	3.5V
	17	2.0V
	19	0.7V

Q2	E	0.8V
	C	8.8V
	B	1.4V

(X11-2422-7X)

Q3	E	6.4V
	C	0V
	B	5.8V

Q4	E	0V
	C	0V
	B	8.4V

Q6	E	0V
	C	2.1V
	B	0V

Q1,2	E	3.0V
	C	3.0V
	B	2.4V

Q7,8	E	—
	C	—
	B	0.7V

Q9	E	—
	C	0V
	B	ON : 5.4V OFF : 0V

(X25-2952-71, 2-73)

IC1	46	5V
	47	5V
	48	5V
	56	5V
	58	5V

(X08-2202-70, 2-71)

IC1	1	3.5V
	2	2.0V
	3	0.9V
	4	0V
	5	1.3V
	6	1.4V
	7	8.8V
	11	1.3V
	12	1.4V
	13	0.9V
	14	0V
	15	3.5V
	16	2.0V

IC2	1	4.5V
	2	4.3V
	3	OFF : 0V B : 5.0V C : 7.0V
	4	4.0V
	6	4.0V
	7	6.8V
	8	4.4V
	9	4.4V
	10	4.4V
	12	4.4V
	13	4.4V
	14	8.8V
	16	4.4V
	18	4.4V

(X14-2172-7X)

IC1	4	RADIO : 0V TAPE : 5V
	5	DE MUTE : 5V
	6	METAL : 5V
	26	0V
	35	0V
	36	0V
	57	5.1V
	58	5.1V

IC2	12	4.6V
	13	4.6V
	16	0V

IC3	2	REC : 5V
	5	4V
	6	1V
	7	0V
	12	0V/5V
	14	5V

IC4	7	0V
	9	SK + KB or SK + DK : 4.4V
	14	5V

IC5	1	1.5V
	2	1.5V
	3	0V
	4	0.5V
	5	0.5V
	6	2V
	7	5V/0V
	8	4V

IC6,7	1	4V
	2	4V
	3	4V
	5	4V
	6	4V
	7	4V
	8	9V

Q91	E	0V
	C	—
	B	AGC OUT : 5V

Q88	E	—
	C	—
	B	MW : 0.6V LW : 9V

Q86	E	0V
	C	—
	B	—

Q84	E	0V
	C	SD : 5V
	B	—

Q79	E	9.4V
	C	—
	B	AGC OUT : 5V

Q76	E	9.4V
	C	—
	B	9V/0V

Q74	E	0V
	C	—
	B	AGC OUT : 5V

Q72	E	9.4V
	C	9.4V
	B	—

Q73	E	9.4V
	C	—
	B	—

Q70	E	—
	C	—
	B	FM : 5V

Q71	E	—
	C	—
	B	AM : 5V

Q66,67	E	5.1V
	C	—
	B	—

Q41	E	14.4V
	C	PLAY : 14.4V
	B	—

Q43	E	—
	C	PLAY : 0V PROG : 14.4V
	B	—

Q44	E	—
	C	PLAY : 0V REW : 14.4V
	B	—

Q45	E	—
	C	PLAY : 0V FF : 14.4V
	B	—

Q51	E	—
	C	—
	B	1.6V

Q56,57	E	—
	C	—
	B	—

Q39	E	—
	C	A : 14V
	B	—

Q40	E	—
	C	G : 14V
	B	—

Q35	E	10.4V
	C	A : 10V
	B	—

Q36	E	10.4V
	C	G : 10V
	B	—

Q29	E	9.4V
	C	—
	B	—

Q25	E	0V
	C	5V 0V
	B	—

Q5	E	—
	C	5.7V
	B	—

Q9	E	—
	C	10.4V
	B	—

Q10	E	10.4V
	C	—
	B	11V

Q11	E	14.4V
	C	14.2V
	B	—

Q16	E	14.4V
	C	14.2V
	B	—

Q15,14	E	14.4V
	C	—
	B	—

Q17	E	—V
	C	13.8V
	B	—

Q20	E	5.7V
	C	5.7V
	B	—

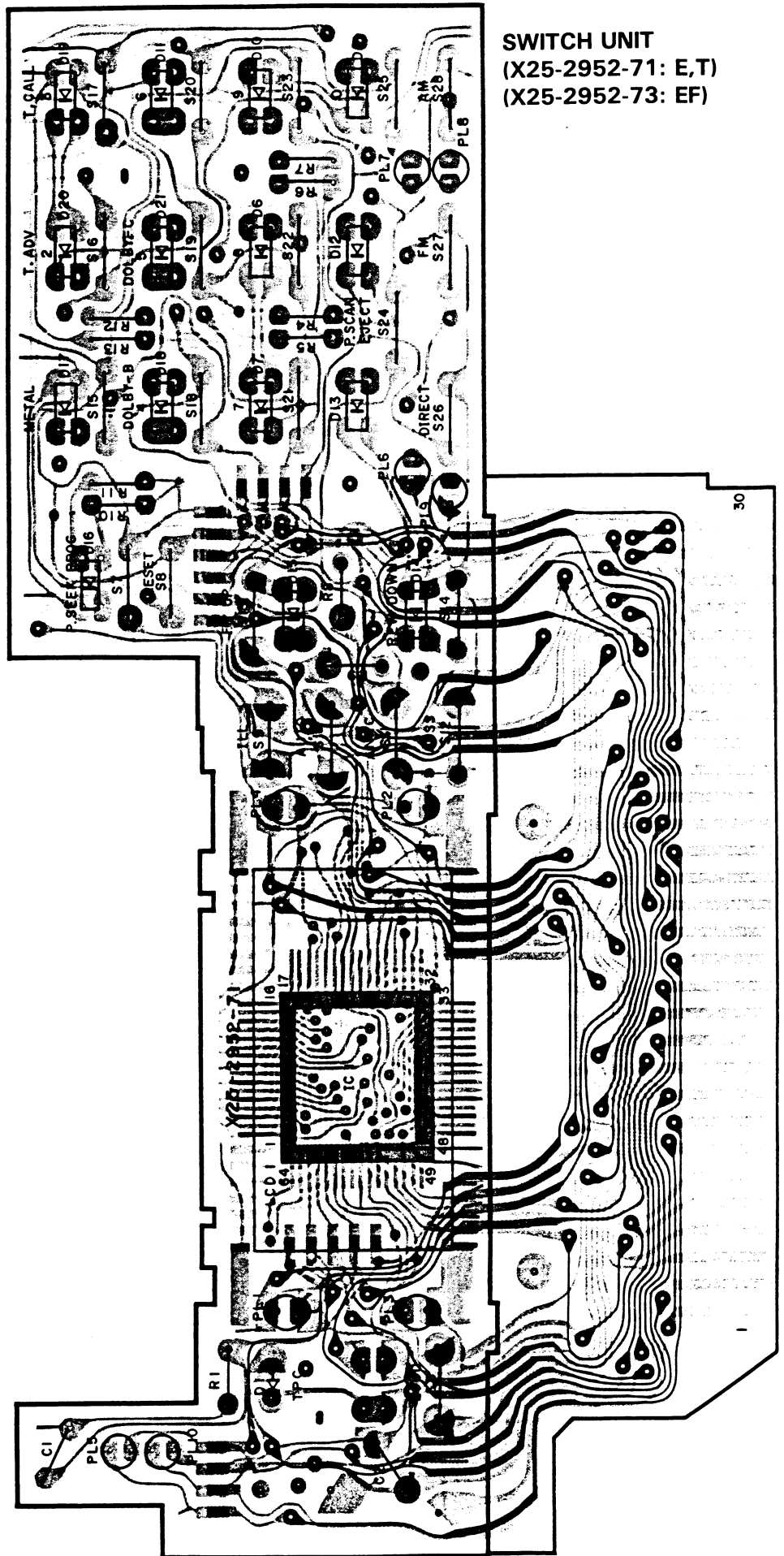
Q19	E	—
	C	—
	B	6.3V

Q22	E	14.4V
	C	—
	B	—

Q23	E	—
	C	9.4V
	B	—

Q24	E	9.4V
	C	—
	B	10V

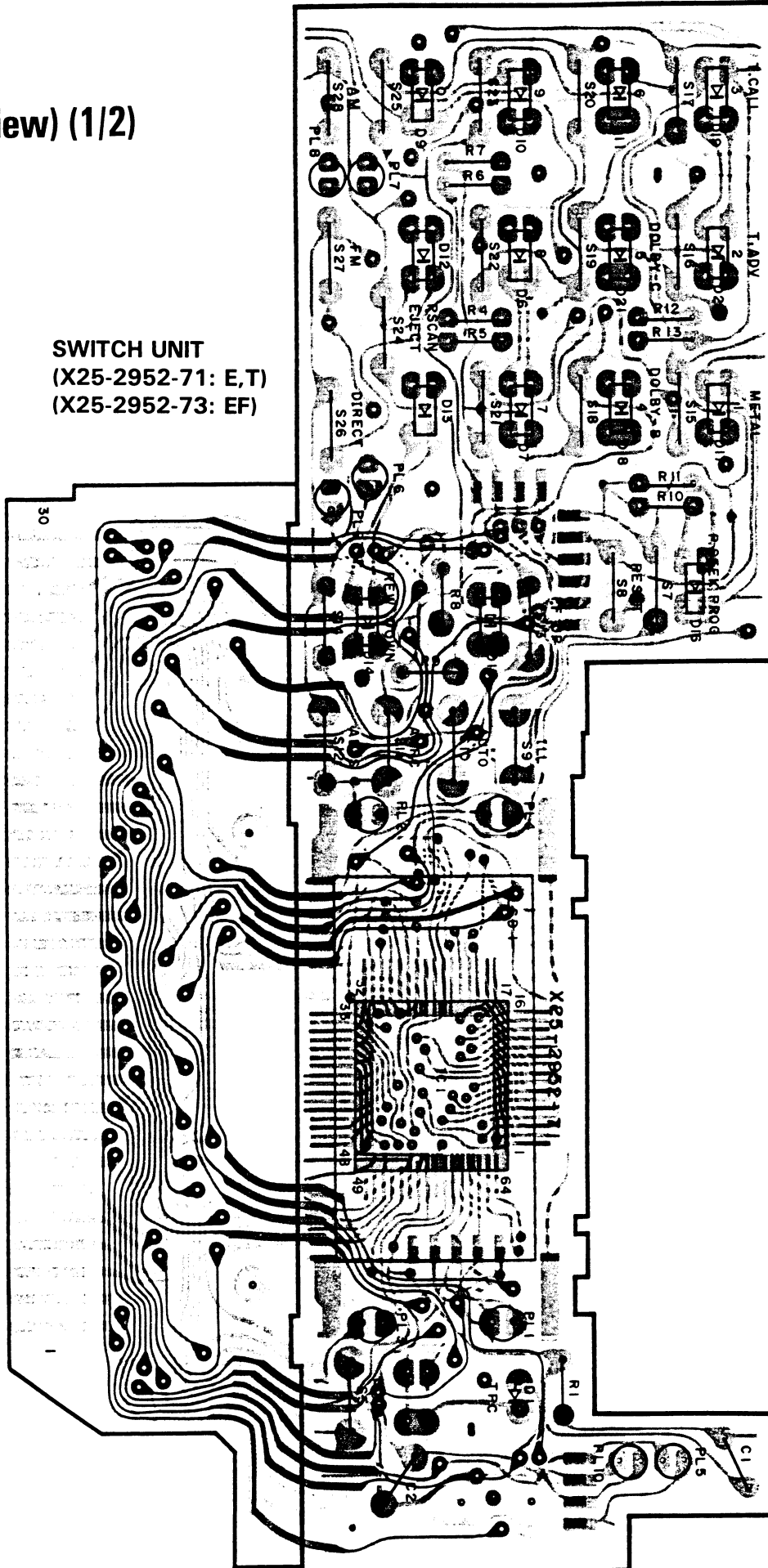
PC BOARD (Component side view) (1/2)



SWITCH UNIT
(X25-2952-71: E,T)
(X25-2952-73: EF)

PC BOARD (Foil side view) (1/2)

SWITCH UNIT
(X25-2952-71: E,T)
(X25-2952-73: EF)



Refer to the schematic diagram for the values of resistors and capacitors.

1

2

3

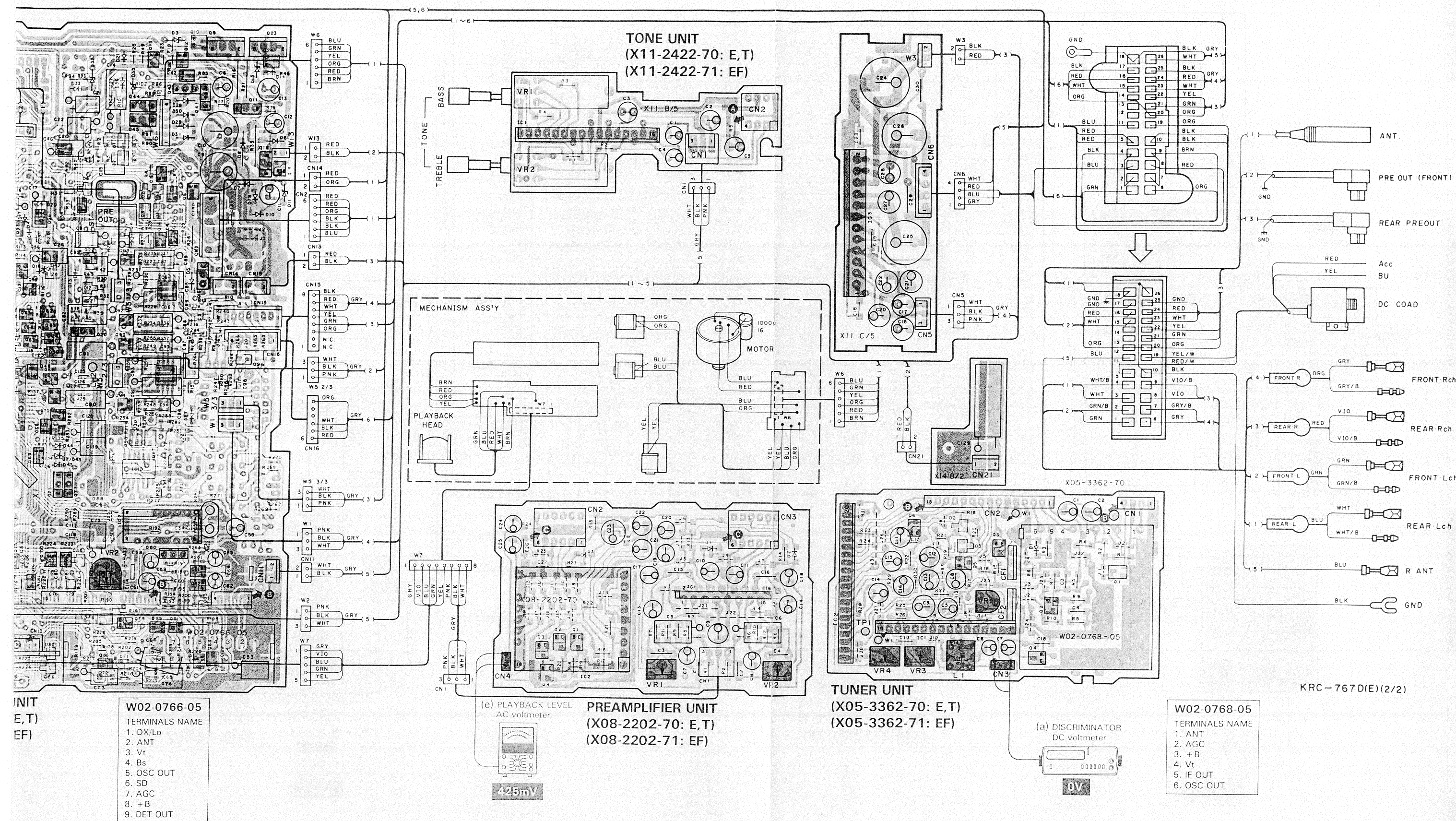
4

5

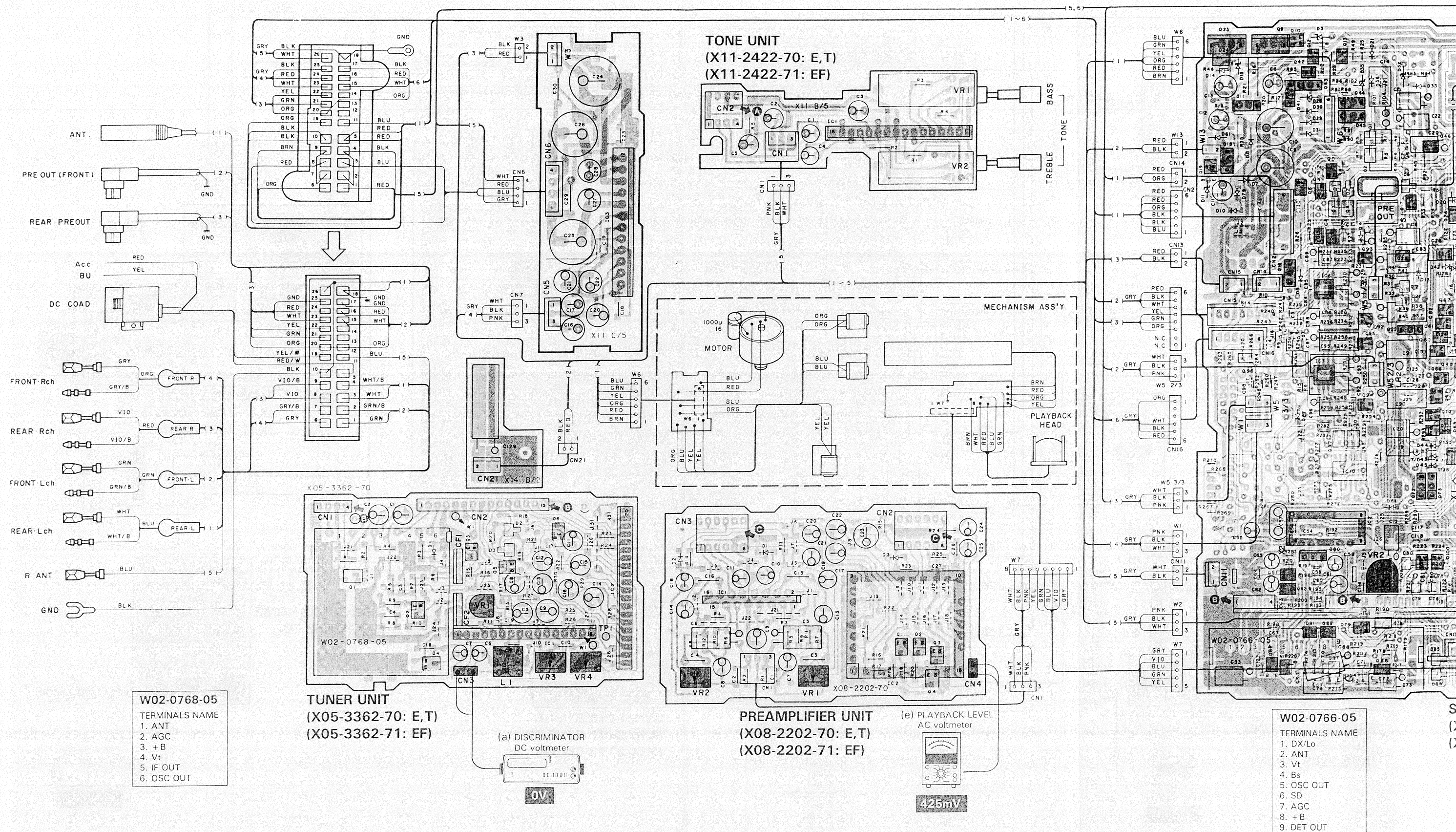
6

7

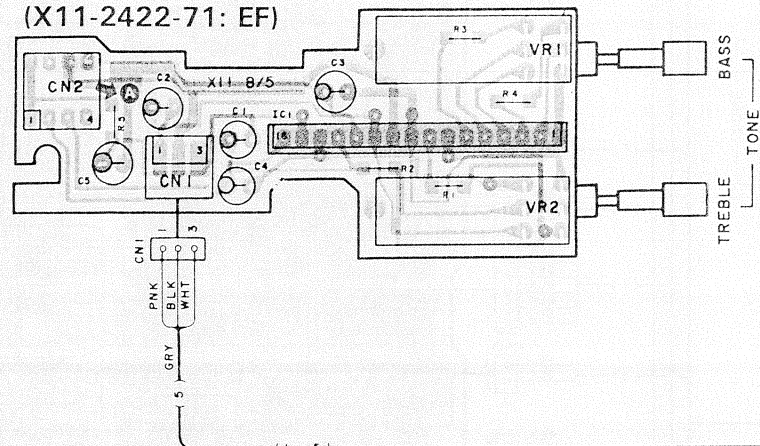




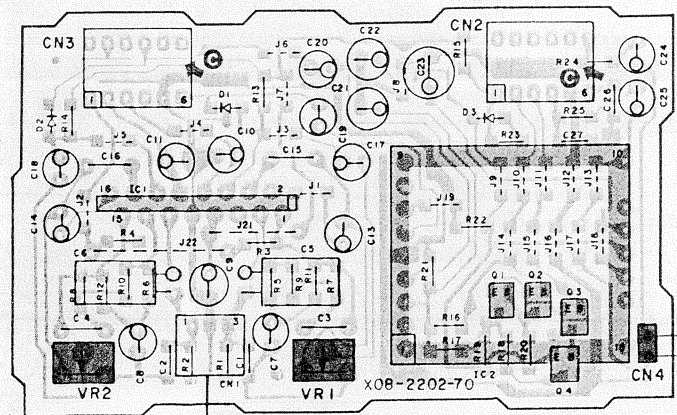
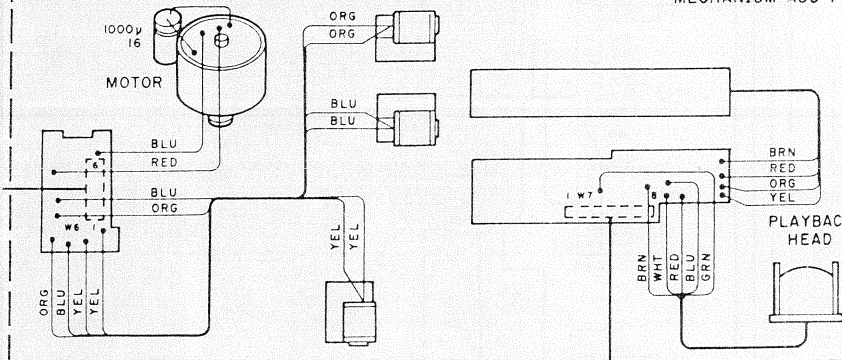
PC BOARD (Foil side view) (2/2)



TONE UNIT
(X11-2422-70: E,T)
(X11-2422-71: EF)

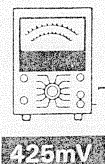


MECHANISM ASS'Y



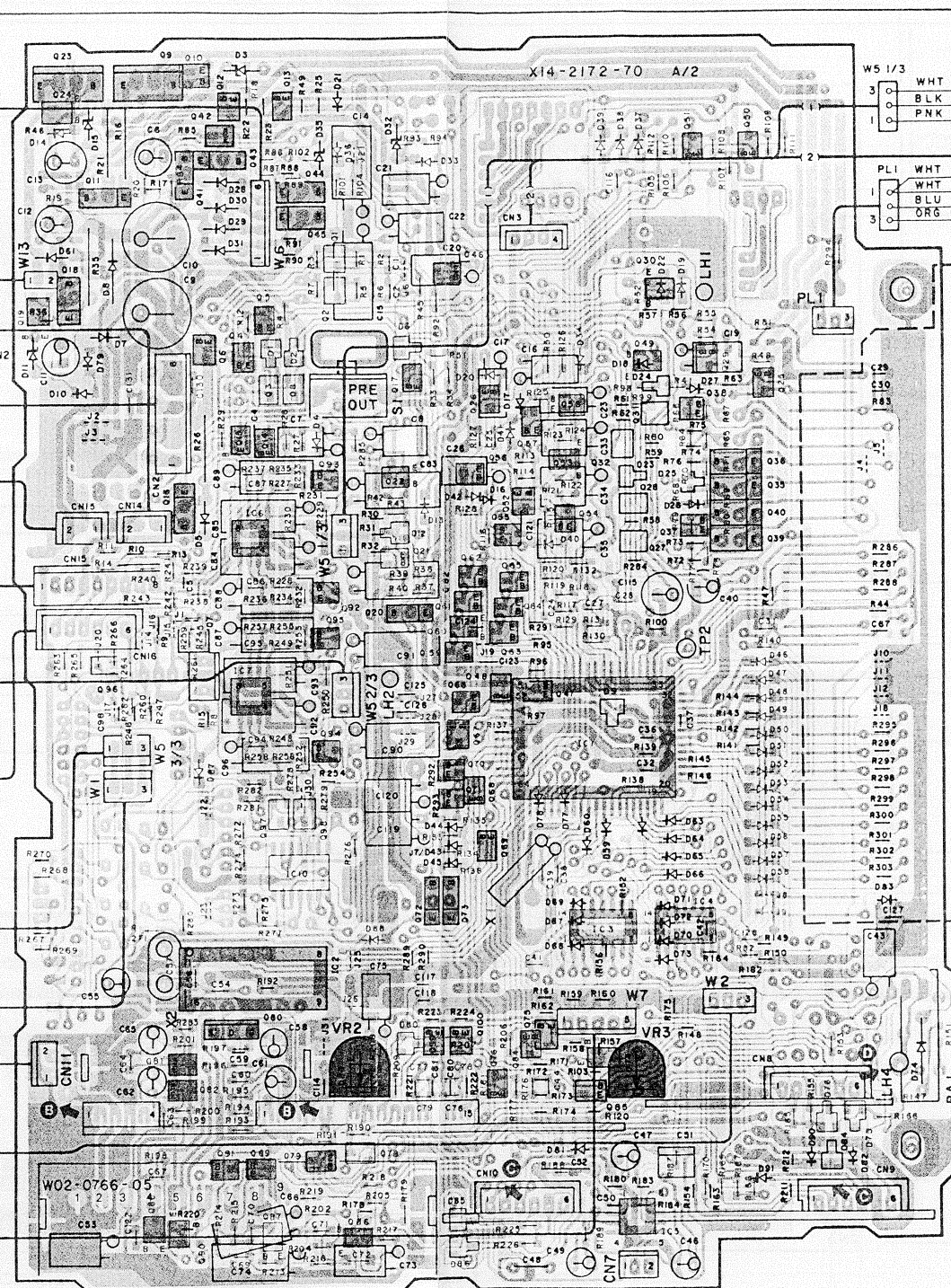
PREAMPLIFIER UNIT
(X08-2202-70: E,T)
(X08-2202-71: EF)

(e) PLAYBACK LEVEL
AC voltmeter

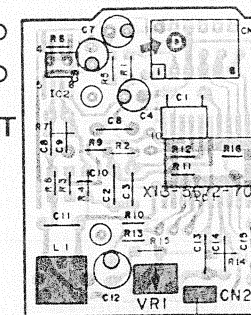


W02-0766-05
TERMINALS NAME
1. DX/Lo
2. ANT
3. Vt
4. Bs
5. OSC OUT
6. SD
7. AGC
8. +B
9. DET OUT

SYNTHESIZER UNIT
(X14-2172-70: E,T)
(X14-2172-71: EF)

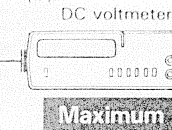


SUB-CIRCUIT UNIT
(X13-5672-70)

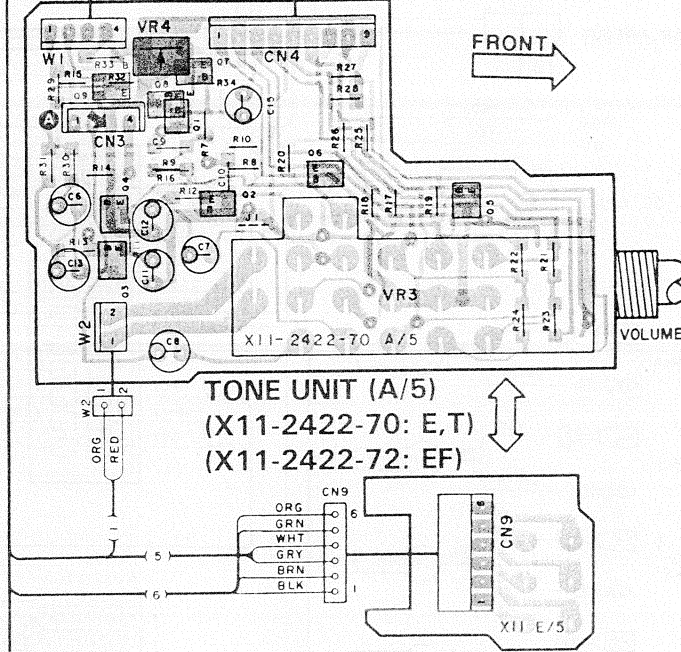


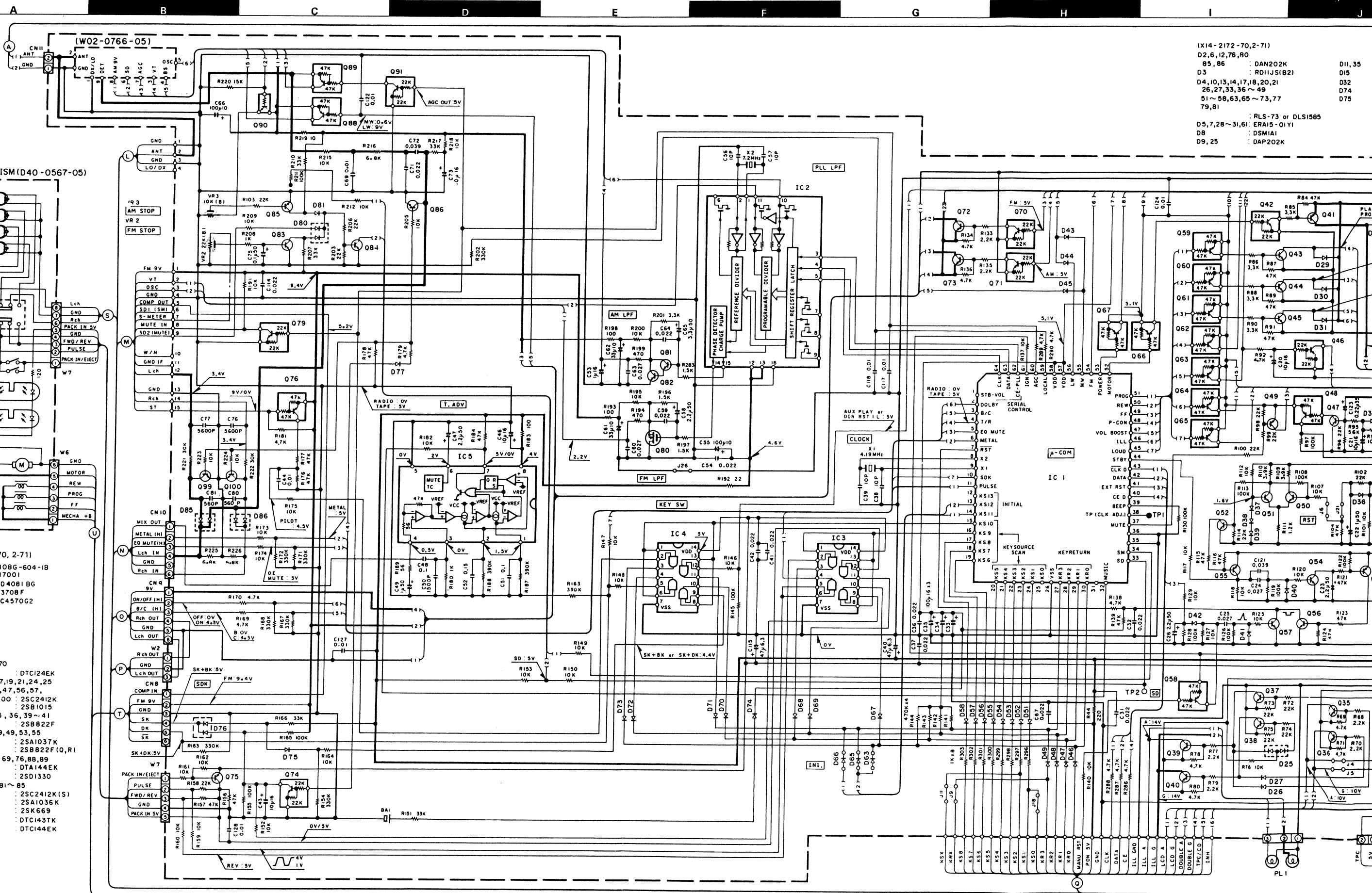
KRC-7670(E)(2/2)

(b) DK LEVEL
DC voltmeter



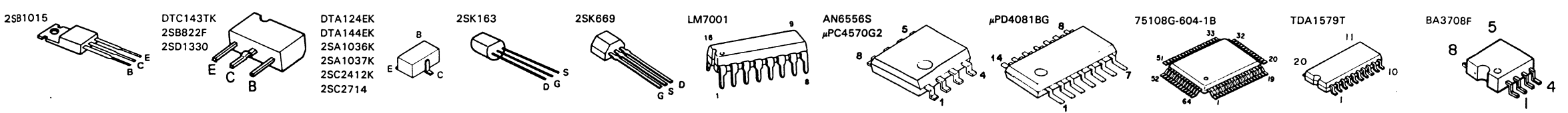
TONE UNIT (A/5)
(X11-2422-70: E,T)
(X11-2422-72: EF)



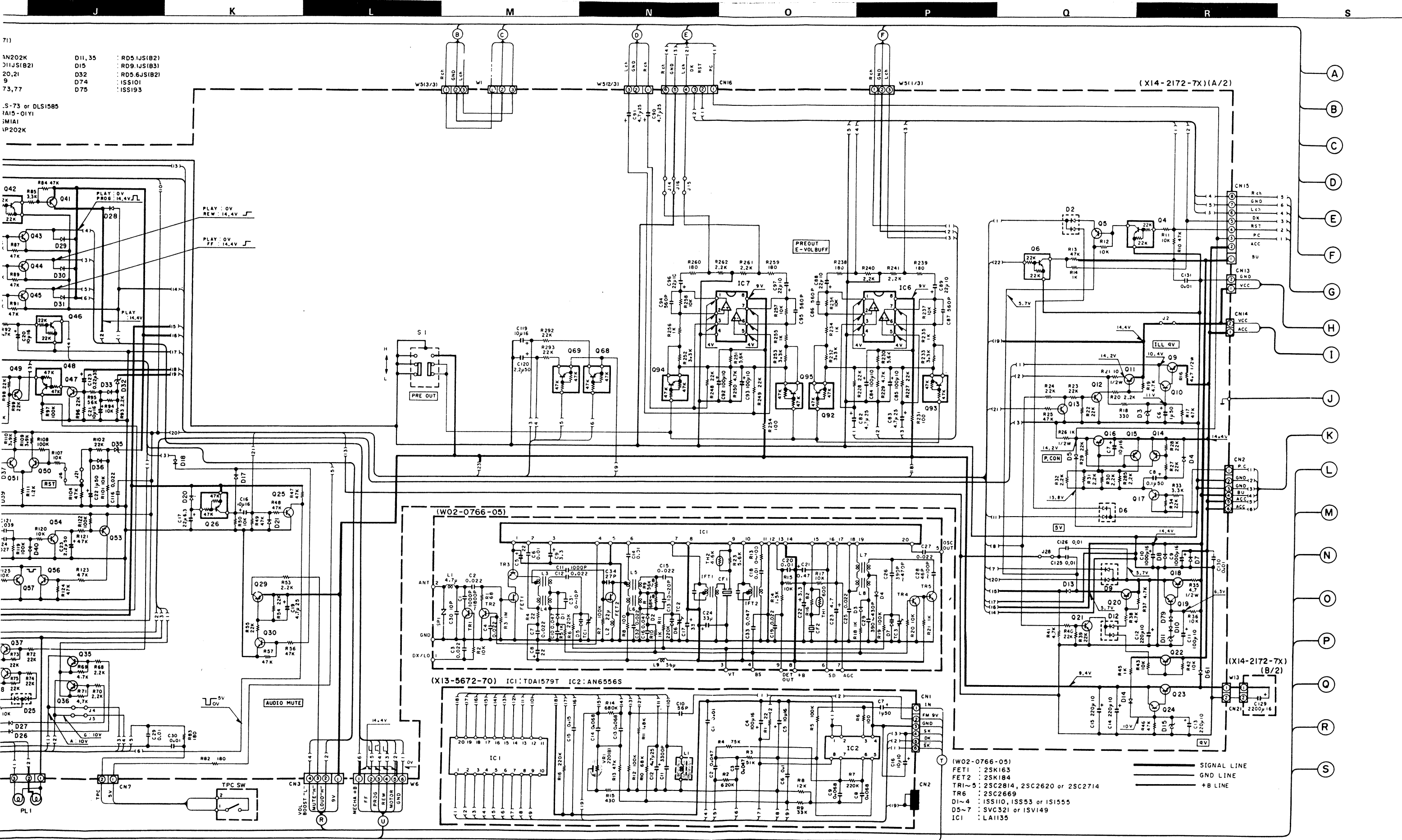


- (X14-2172-70,2-71)
D2,6,12,76,80 : DAN202K
D3 : RD11J51B21
D4,10,13,14,17,18,20,21 : D32
26,27,33,36~49 : D74
51~58,63,65~73,77 : D75
79,81 : RLS-73 or DLS1585
D5,7,28~31,61 : ERA15-01Y1
D8 : DSMIAI
D9,25 : DAP202K

- CI 1000µ16
(X14-2172-70, 2-71)
IC1 : 75108G-604-1B
IC2 : LM7001
IC3,4 : µPD4081BG
IC5 : BA3708F
IC6,7 : µPC4570G2
- 04,6,42,46,70 : DTC124EK
71,74,79 : 2S81015
05,10,12,13,17,19,21,24,25 : 2SC2412K
30,37,38,47,56,57, : 2S81015
86,99,100 : 2S81015
09,23 : 2S81015
11,18,20,35,36,39~41 : 2S81015
72,73 : 2S81015
014,15,22,29,49,53,55 : 2S81015
016 : 2S81015
026,48,58~69,76,88,89 : 2S81015
043~45 : 2S81015
050~52,54,81~85 : 2S81015
075 : 2S81015
080 : 2S81015
090 : 2S81015
091~95 : 2S81015



Kenwood follows a policy of continuous advancement. For this reason specifications may be changed without notice. DOLBY and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.



Kenwood has a policy of continuous advancements in development.
Specifications may be changed without notice.
The double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
This circuit made under license from Dolby Laboratories Licensing Corporation.

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.

KRC-767D (E)(1/2)

KRC-767D
KENWOOD

1

2

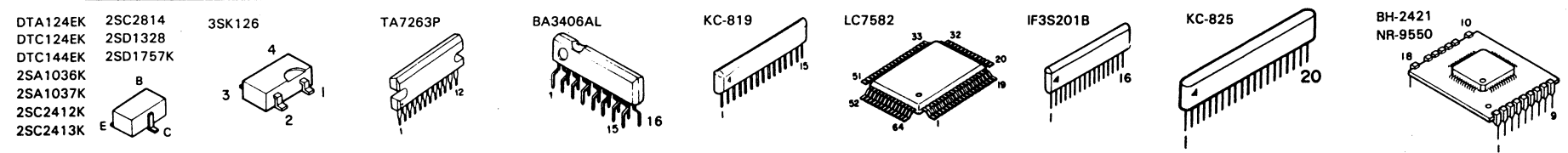
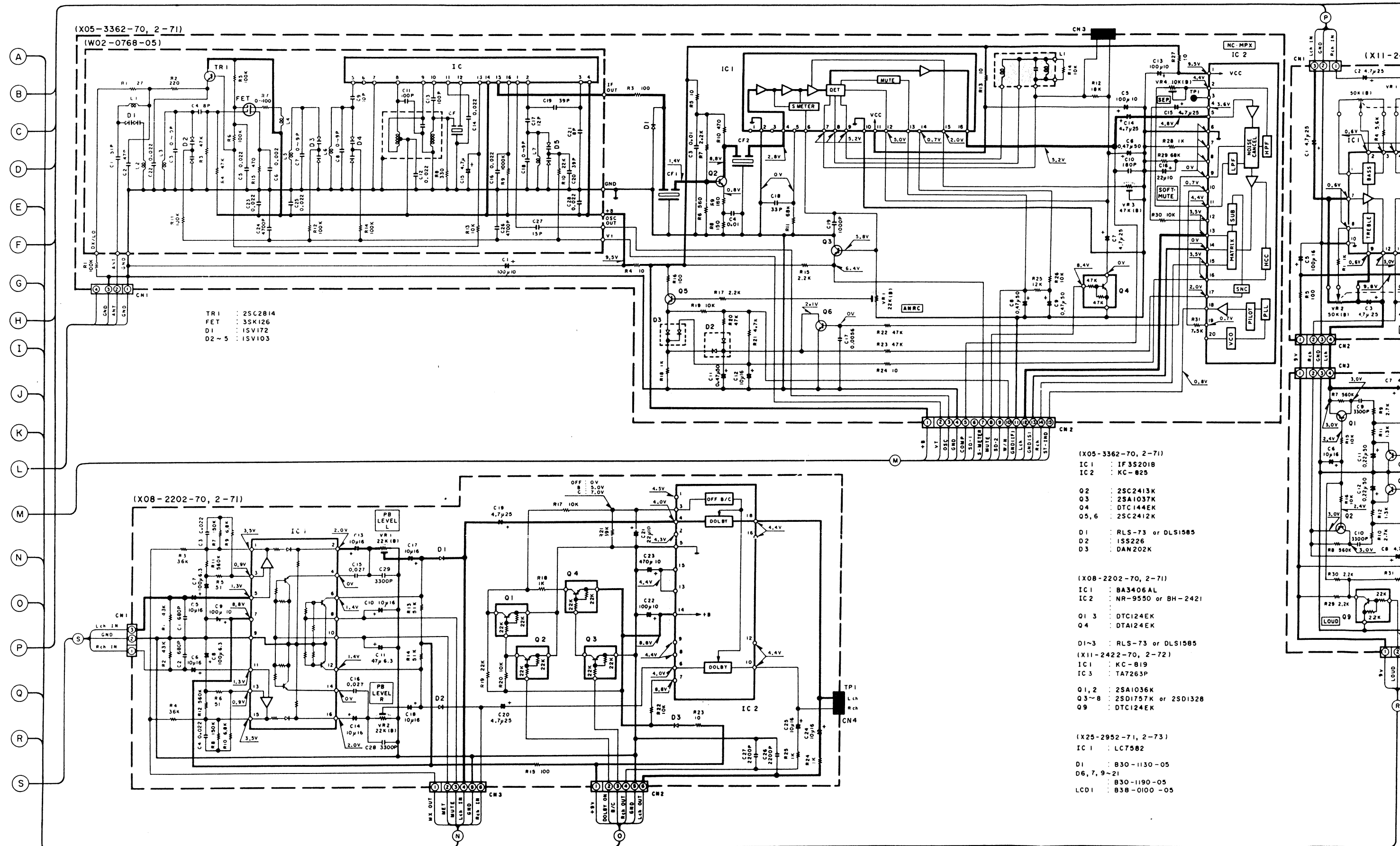
3

4

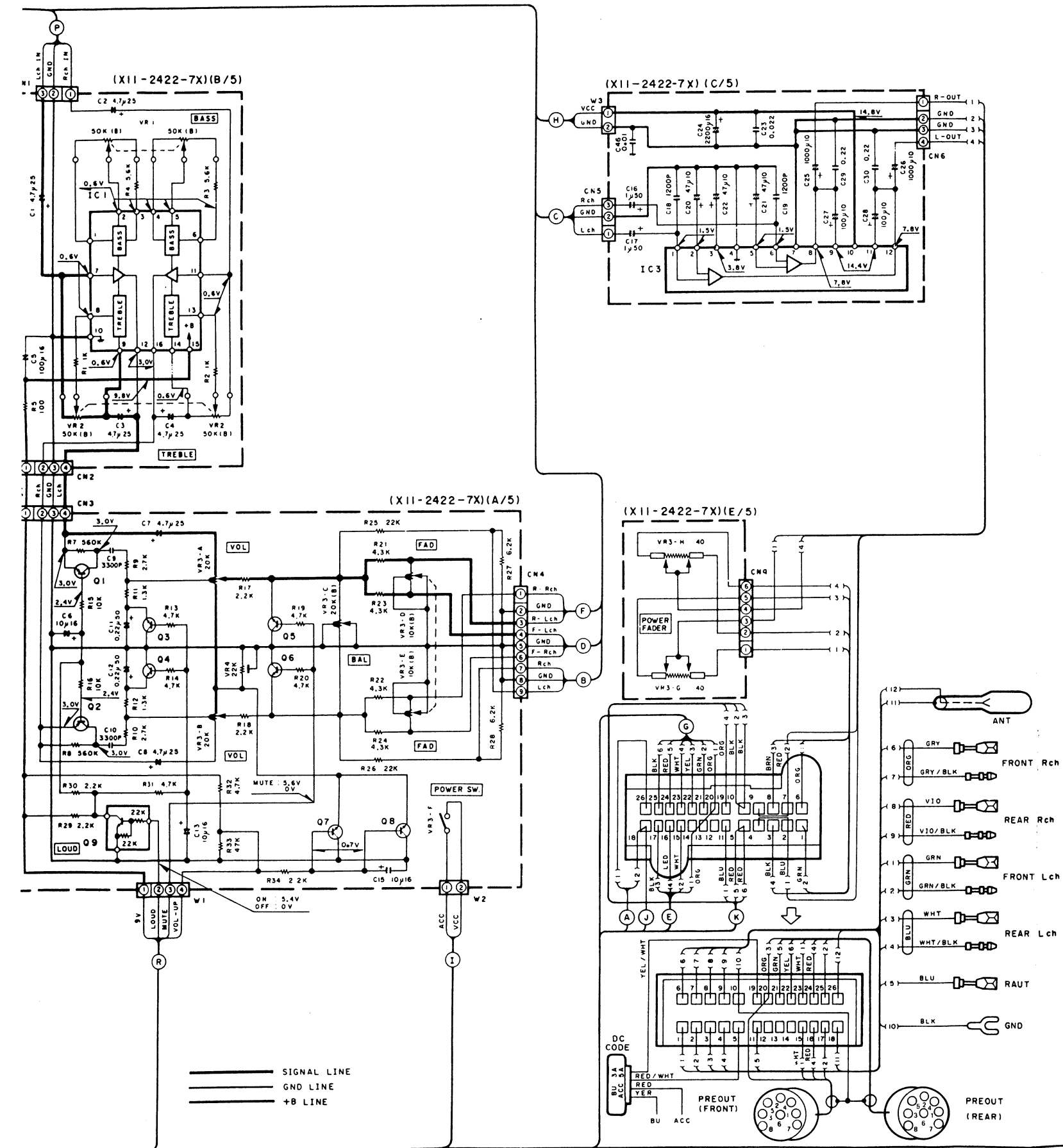
5

6

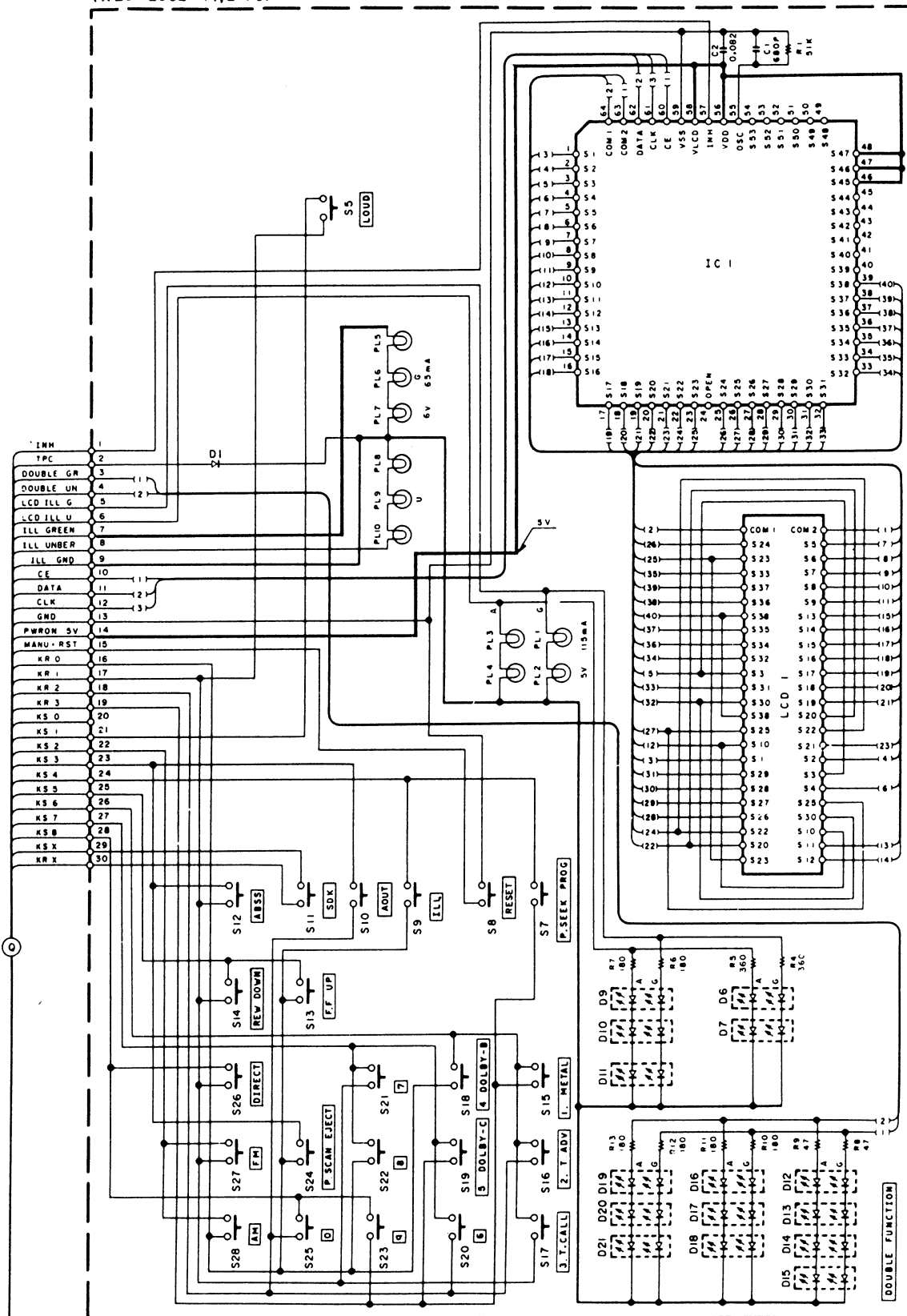
7



Kenwood follows a policy of continuous
For this reason specifications may be ch
DOLBY and the double-D symbol are trade
Noise reduction circuit made under licen



(X 25-2952-71,2-73)



Les tensions c.c. doivent être mesurées avec un volt-mètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

KRC-767 D(E) (2/2)

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.

KRC-767D
KENWOOD

Kenwood follows a policy of continuous advancements in development. Reason specifications may be changed without notice. The double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. This circuit made under license from Dolby Laboratories Licensing Corporation.

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

FRONT PREOUT

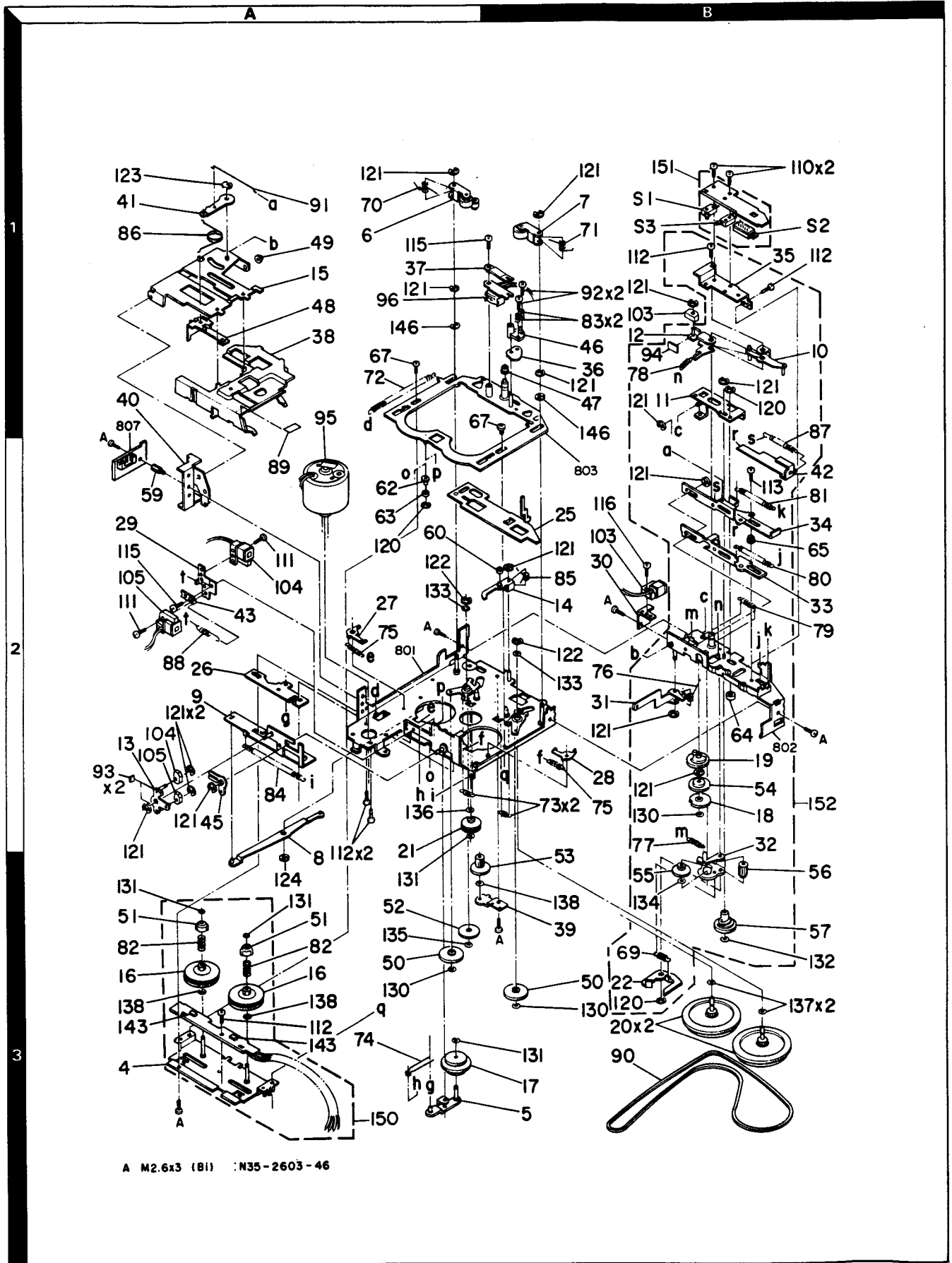
REAR PREOUT

- 1: Lch
- 2: GND
- 3: PC
- 4: Rch

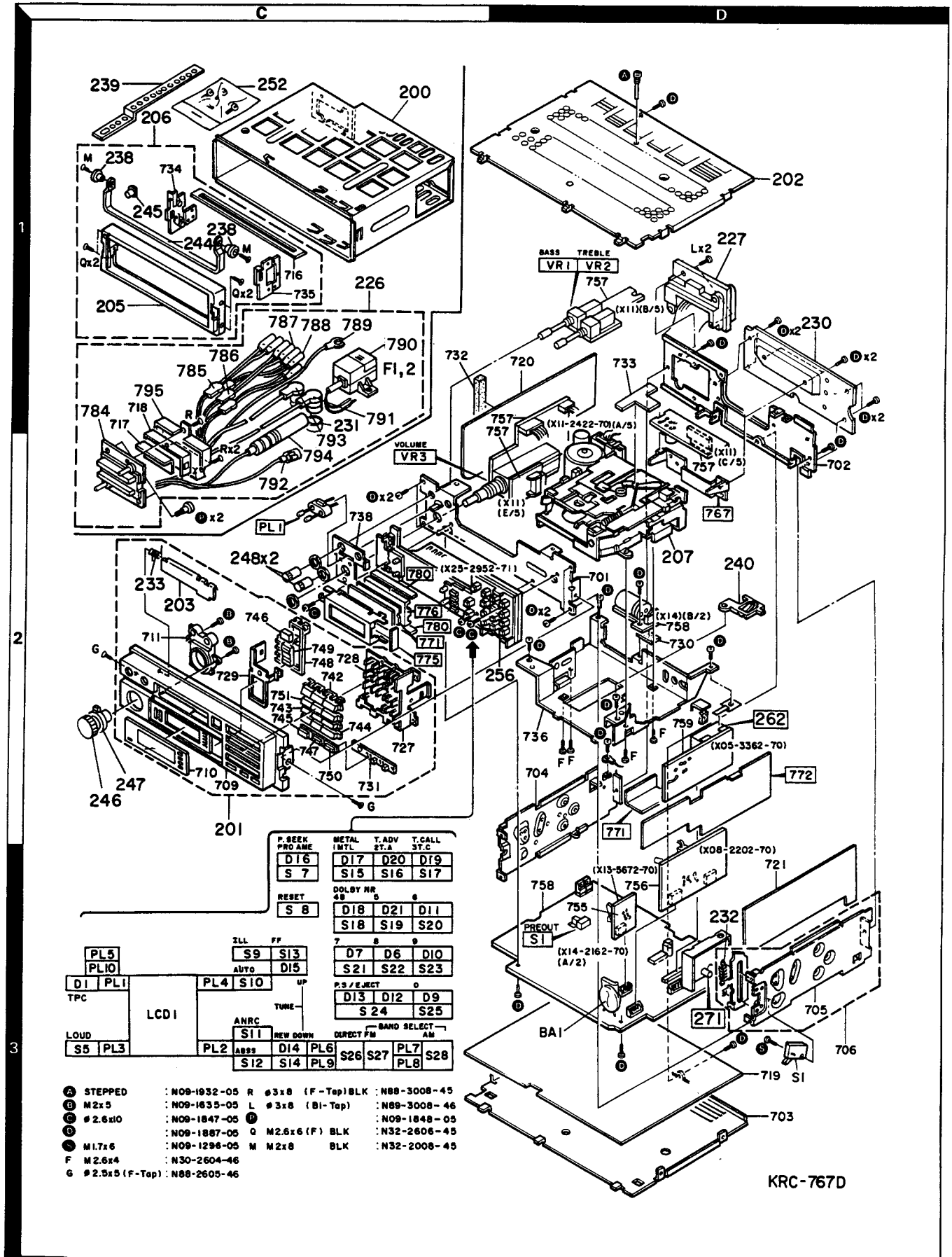
- 1: Lch
- 2: GND
- 3: PC
- 4: Rch
- 5: RST
- 6: DK

EXPLODED VIEW (MECHANISM)

KRC-767D



EXPLODED VIEW (UNIT)



PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
KRC-767D						
200	1C	*	A01-1563-01	METALLIC CABINET	EEE	
201	2C	*	A20-5310-02	PANEL ASSY		
202	1D	*	A52-0106-13	TOP PLATE		
203	2C	*	A53-0943-03	CASSETTE LID		
		*	B58-0803-03	CAUTION CARD	EEE	
205	1C	*	B07-1742-11	ESCUTCHEON		
206	1C	*	B07-1751-23	ESCUTCHEON ASSY		
-		*	B46-0100-10	WARRANTY CARD		
-		*	B50-6897-00	INSTRUCTION MANUAL (E,F,G,I,D)	EF EF ET	
-		*	B50-6898-00	INSTRUCTION MANUAL (GER,ITA)		
-		*	B50-8560-00	INSTRUCTION MANUAL (DUTCH)		
-		*	B58-0853-04	CAUTION CARD		
C1			CE04DW1C102M	ELECTRØ 1000UF 16WV		
207	2D	*	D40-0567-05	CASSETTE MECHANISM ASSY		
226	1C	*	E30-2253-05	CONNECTOR ASSY (CASE)		
227	1D	*	E30-2256-05	CONNECTOR ASSY (SET)		
230	1D	*	F02-0052-13	HEAT SINK (REAR)		
231	1C	*	F29-0046-15	INSULATING COVER (DIN CORD)		
F1		*	F05-7521-05	FUSE (7.5A) ACC		
F2		*	F06-3026-05	FUSE (3A) BACKUP		
232	3D	*	G01-2040-04	EXTENSION SPRING (SIDE PLATE-R)		
233	2C	*	G01-2044-04	TORSION COIL SPRING (CASE DOOR)		
-		*	H01-7606-04	ITEM CARTON CASE		
-		*	H03-0922-04	OUTER CARTON CASE		
-		*	H10-3444-03	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-3445-03	POLYSTYRENE FOAMED FIXTURE		
-		*	H25-0112-04	PROTECTION BAG (180X250X0.05)		
-			H25-0268-04	PROTECTION BAG		
238	1C	*	J31-0812-04	COLLAR		
239	1C	*	J54-0059-04	STAY		
240	1C	*	J19-2837-04	HOLDER		
244	1C	*	K01-0084-03	HANDLE		
245	1C	*	K27-1752-14	KNØB (BUTTON)		
246	2C	*	K27-1756-04	KNØB (BUTTON) VOLUME		
247	2C	*	K27-1757-14	KNØB (BUTTON) FADER		
248	2C	*	K27-1758-04	KNØB (BUTTON) TONE		
252	1C		N99-0099-05	SCREW SET		
A	1D		N09-1461-05	STEPPED SCREW (M2.6X14)		
B	2C		N09-1635-05	TAPTITE SCREW (M2X5)		
C	2C	*	N09-1847-05	EVA TITE SCREW (2.6X10)		
D	2C, 2D	*	N09-1887-05	TAPTITE SCREW		
P	2C	*	N09-1848-05	STEPPED SCREW (CASE-CONNECTOR)		
S	3D		N09-1296-05	MACHINE SCREW (M1.7X6)		
S1	3D		S46-1076-05	LEAF SWITCH		
BA1	3D		W09-0046-05	BATTERY		
256	2D	*	X25-2952-71	SWITCH UNIT	ET	
256	2D	*	X25-2952-73	SWITCH UNIT	EF	

E: Scandinavia & Europe K: USA P: Canada

EF: France Made

U: PX (Far East, Hawaii) T: England M: Other Areas

UE: AAFES (Europe) X: Australia

⚠ indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
TUNER UNIT (X05-3362-70: E,T, 2-72: EF)						
C1 C3 ,4 C5 C6 C7			CE04DW1A101M CK41DY1C103M CE04DW1A101M C90-0484-05 C90-0482-05	ELECTRØ 100UF 10WV CYLND CHIP C 0.010UF M ELECTRØ 100UF 10WV ELECTRØ 0.47UF 50WV ELECTRØ 4.7UF 25WV		
C8 ,9 C10 C11 C12 C13			CE04DW1HR47M CK41DB1H181K CE04DW1HR47M CE04DW1C100M CE04DW1A101M	ELECTRØ 0.47UF 50WV CYLND CHIP C 180PF K ELECTRØ 0.47UF 50WV ELECTRØ 10UF 16WV ELECTRØ 100UF 10WV		
C14 ,15 C16 C17 C18 C19			CE04DW1E4R7M CE04DW1C220M CK73FB1H562K CC41DSL1H330J CK73FB1H102K	ELECTRØ 4.7UF 25WV ELECTRØ 22UF 16WV CHIP C 5600PF K CYLND CHIP C 33PF J CHIP C 1000PF K		
CN1 CN2 CN3		*	E40-3391-05 E40-3402-05 E40-3640-05	PIN ASSY PIN ASSY PIN ASSY		
CF1 ,2 L1		*	L72-0524-05 L30-0462-15	CERAMIC FILTER FM IFT		
J1 -11 J21 -28 J21 -29 J33 R1			R92-0670-05 R92-0338-05 R92-0338-05 R92-0338-05 RD41DB2B104J	CHIP R 0 ØHM CLYND CHIP R 0 ØHM CLYND CHIP R 0 ØHM CLYND CHIP R 0 ØHM CYLND CHIP R 100K J 1/8W	EF ET EF	
R3 R4 ,5 R6 R7 R8			RD41DB2B101J RD41DB2B100J RK73FB2A561J RD41DB2B222J RD41DB2B151J	CYLND CHIP R 100 J 1/8W CYLND CHIP R 10 J 1/8W CHIP R 560 J 1/10W CYLND CHIP R 2.2K J 1/8W CYLND CHIP R 150 J 1/8W		
R9 R10 R11 R12 R13			RD41DB2B181J RD41DB2B471J RK73FB2A683J RK73FB2A183J RK73FB2A100J	CYLND CHIP R 180 J 1/8W CYLND CHIP R 470 J 1/8W CHIP R 68K J 1/10W CHIP R 18K J 1/10W CHIP R 10 J 1/10W		
R14 R15 R16 R17 R18			RK73FB2A103J RK73FB2A222J RK73FB2A101J RK73FB2A222J RK73FB2A102J	CHIP R 10K J 1/10W CHIP R 2.2K J 1/10W CHIP R 100 J 1/10W CHIP R 2.2K J 1/10W CHIP R 1.0K J 1/10W		
R19 R20 R21 R22 ,23 R24			RK73FB2A103J RK73FB2A473J RK73FB2A472J RD41DB2B473J RD41DB2B100J	CHIP R 10K J 1/10W CHIP R 47K J 1/10W CHIP R 4.7K J 1/10W CYLND CHIP R 47K J 1/8W CYLND CHIP R 10 J 1/8W		
R25 R26 R27 R28 R29			RK73FB2A123J RK73FB2A103J RD41DB2B100J RK73FB2A102J RK73FB2A683J	CHIP R 12K J 1/10W CHIP R 10K J 1/10W CYLND CHIP R 10 J 1/8W CHIP R 1.0K J 1/10W CHIP R 68K J 1/10W		
R30 R31			RK73FB2A103J RD41DB2B752J	CHIP R 10K J 1/10W CYLND CHIP R 7.5K J 1/8W		

E: Scandinavia & Europe K: USA

P: Canada

EF: France Made

U: PX(Far East, Hawaii)

T: England

M: Other Areas

UE: AAFES(Europe)

X: Australia

⚠ indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名/規格	Desti- nation 仕向	Re- marks 備考
VR1 VR3 VR4			R12-3072-05 R12-3103-05 R12-3100-05	TRIMMING P8T. (22K)ANRC TRIMMING P8T. (47K)SOFT MUTE TRIMMING P8T. (10K)SEPARATION		
D1 D1 D2 D3 IC1		*	DL51585 RLS-73 1S5226 DAN202K IF35201B	DIODE DIODE DIODE DIODE IC (FM IF AMP/DET)		
IC2 Q2 Q3 Q4 Q5 .6			KC-825 2SC2413K 2SA1037K DTC144EK 2SC2412K	IC (NOISE CANCELLER/ MPX) TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR		
262	2D		W02-0768-05	FM FRONT-END ASSY		
PREAMPLIFIER UNIT (X08-2202-70: E,T, 2-71: EF)						
C1 .2 C3 .4 C5 .6 C7 .8 C9		*	CK41DB1H681K CF92V1H223J CE04DW1C100M CE04MW0J101M CE04MW1A101M	CYLND CHIP C 680PF K MF 0.022UF J ELECTRO 10UF 16WV ELECTRO 100UF 6.3WV ELECTRO 100UF 10WV		
C10 C11 C13 .14 C15 .16 C17 .18			CE04MW1C100M C90-0495-05 CE04MW1C100M CF92V1H273J CE04MW1C100M	ELECTRO 10UF 16WV ELECTRO 47UF 6.3WV ELECTRO 10UF 16WV MF 0.027UF J ELECTRO 10UF 16WV		
C19 .20 C21 C22 C23 C24 .25			CE04MW1E4R7M CE04DW1A220M CE04DW1A101M CE04DW1A471M CE04MW1C100M	ELECTRO 4.7UF 25WV ELECTRO 22UF 10WV ELECTRO 100UF 10WV ELECTRO 470UF 10WV ELECTRO 10UF 16WV		
C26 .27 C28 .29		*	CK41DX1C222M CK73FB1H332K	CYLND CHIP C 2200PF M CHIP C 3300PF K		
J1 -19 J1 -20 J22 J23 J25			R92-0338-05 R92-0338-05 R92-0150-05 R92-0338-05 R92-0670-05	CLYND CHIP R 0 8HM CLYND CHIP R 0 8HM JUMPER REST 0 8HM CLYND CHIP R 0 8HM CHIP R 0 8HM	EE ET EF	
R1 .2 R3 .4 R5 .6 R7 .8 R9 .10			RD41DB2B433J RD41DB2B363J RD41DB2B470J RD41DB2B154J RD41DB2B682J	CYLND CHIP R 43K J 1/8W CYLND CHIP R 36K J 1/8W CYLND CHIP R 47 J 1/8W CYLND CHIP R 150K J 1/8W CYLND CHIP R 6.8K J 1/8W		
R11 .12 R13 .14 R15 R17 R18			RD41DB2B564J RD41DB2B513J RD41DB2B391J RD41DB2B103J RD41DB2B102J	CYLND CHIP R 560K J 1/8W CYLND CHIP R 51K J 1/8W CYLND CHIP R 390 J 1/8W CYLND CHIP R 10K J 1/8W CYLND CHIP R 1.0K J 1/8W		
R19 R20 R21 R22 R23			RD41DB2B223J RD41DB2B103J RD41DB2B393J RD41DB2B103J RD41DB2B100J	CYLND CHIP R 22K J 1/8W CYLND CHIP R 10K J 1/8W CYLND CHIP R 39K J 1/8W CYLND CHIP R 10K J 1/8W CYLND CHIP R 10 J 1/8W		
R24 .25			RD41DB2B102J	CYLND CHIP R 1.0K J 1/8W		

E: Scandinavia & Europe K: USA P: Canada

EF: France Made

U: PX(Far East, Hawaii) T: England M: Other Areas

UE: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名/規格	Desti- nation 仕向	Re- marks 備考
VR1 ,2			R12-3101-05	TRIMMING P8T. (22K)PB LEVEL		
D1 -3			DLS1585	DIODE		
D1 -3			RLS-73	DIODE		
IC1			BA3406AL	IC(PREAMP FOR TAPE EQ X2)		
IC2			BH-2421	IC(DOLBY)		
IC2			NR-9550	IC(DOLBY)		
Q1 -3			DTC124EK	DIGITAL TRANSISTOR		
Q4			DTA124EK	DIGITAL TRANSISTOR		
TONE UNIT (X11-2422-70: E,T, 2-72: EF)						
C1			C90-0482-05	ELECTR 4.7UF 25WV	ET	
C1 -4			C90-0482-05	ELECTR 4.7UF 25WV	EF	
C2 ,3			C90-0482-05	ELECTR 4.7UF 25WV	ET	
C4			C90-0482-05	ELECTR 4.7UF 25WV	ET	
C5			C90-1263-05	ELECTR 100UF 16WV		
C6			CE04DW1C100M	ELECTR 10UF 16WV		
C7 ,8			C90-0482-05	ELECTR 4.7UF 25WV		
C9 ,10		*	CK41DX1C332M	CYLND CHIP C 3300PF M		
C11			CE04DW1HR22M	ELECTR 0.22UF 50WV	ET	
C11 ,12			CE04DW1HR22M	ELECTR 0.22UF 50WV	EF	
C12			CE04DW1HR22M	ELECTR 0.22UF 50WV	ET	
C13			C90-0478-05	ELECTR 10UF 16WV		
C15			C90-0478-05	ELECTR 10UF 16WV		
C16			CE04DW1H010M	ELECTR 1.0UF 50WV	ET	
C16 ,17			CE04DW1H010M	ELECTR 1.0UF 50WV	EF	
C17			CE04DW1H010M	ELECTR 1.0UF 50WV	ET	
C18 ,19			CK41DB1H122K	CYLND CHIP C 1200PF K		
C20 -22			CE04DW1A470M	ELECTR 47UF 10WV		
C23		*	CK41DF1E223Z	CYLND CHIP C 0.022UF Z		
C24			CE04DW1C222M	ELECTR 2200UF 16WV		
C25 ,26			CE04DW1A102M	ELECTR 1000UF 10WV		
C27 ,28			CE04DW1A101M	ELECTR 100UF 10WV		
C29 ,30			CF92V1H224J	MF 0.22UF J		
C46			CK41DY1C103M	CYLND CHIP C 0.010UF M		
J4			R92-0338-05	CYLND CHIP R 0 8HM	ET	
J6			R92-0338-05	CYLND CHIP R 0 8HM	EF	
R1 ,2			RD41DB2B102J	CYLND CHIP R 1.0K J 1/8W		
R3 ,4			RD41DB2B562J	CYLND CHIP R 5.6K J 1/8W		
R5			RD41DB2B101J	CYLND CHIP R 100 J 1/8W		
R7 ,8			RD41DB2B564J	CYLND CHIP R 560K J 1/8W		
R9 ,10			RD41DB2B272J	CYLND CHIP R 2.7K J 1/8W		
R11 ,12			RD41DB2B132J	CYLND CHIP R 1.3K J 1/8W		
R13 ,14			RD41DB2B472J	CYLND CHIP R 4.7K J 1/8W		
R15 ,16			RD41DB2B103J	CYLND CHIP R 10K J 1/8W		
R17 ,18			RD41DB2B222J	CYLND CHIP R 2.2K J 1/8W		
R19 ,20			RD41DB2B472J	CYLND CHIP R 4.7K J 1/8W		
R21 -24			RD41DB2B432J	CYLND CHIP R 4.3K J 1/8W		
R25 ,26			RD41DB2B223J	CYLND CHIP R 22K J 1/8W		
R27 ,28			RD41DB2B622J	CYLND CHIP R 6.2K J 1/8W		
R29 ,30			RD41DB2B222J	CYLND CHIP R 2.2K J 1/8W		
R31 ,32			RD41DB2B472J	CYLND CHIP R 4.7K J 1/8W		
R33			RD41DB2B473J	CYLND CHIP R 47K J 1/8W		
R34			RD41DB2B222J	CYLND CHIP R 2.2K J 1/8W		
VR1 ,2	1D	*	R10-4029-05	POTENTIOMETER (BASS, TREBLE)		

E: Scandinavia & Europe K: USA P: Canada
 U: PX(Far East, Hawaii) T: England M: Other Areas
 UE: AAFES(Europe) X: Australia

EF: France Made

 indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名/規格	Desti- nation 仕向	Re- marks 備考
VR3 VR4	2C	*	R24-3010-05 R12-3101-05	POTENTIOMETER (VOL, FAD, BAL) TRIMMING POT. (22K) SDK LEVEL		
IC1 IC3 Q1 ,2 Q3 -8 Q3 -8 Q9			KC-819 TA7263P 2SA1036K 2SD1328 2SD1757K DTC124EK	IC(TONE AMP X2) IC(AF POWER AMP/ 5.8W X2) TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR		
SUB-CIRCUIT UNIT (X13-5672-70)						
C1 C2 ,3 C4 C5 C6			CF92V1H103J CF92V1H473J C90-1263-05 C90-0478-05 CF92V1H104J	MF 0.010UF J MF 0.047UF J ELECTRO 100UF 16WV ELECTRO 10UF 16WV MF 0.10UF J		
C7 C8 ,9 C10 C11 C12		*	C90-0824-05 CF92V1H683J CC73FCH1H560J C093HP2A332J C90-0482-05	ELECTRO 1UF 50WV MF 0.068UF J CHIP C 56PF J MYLAR 3300PF J ELECTRO 4.7UF 25WV		
C13 ,14 C15 C16			CF92V1H683J CF92V1H154J CE04CW1C100M	MF 0.068UF J MF 0.15UF J ELECTRO 10UF 16WV		
L1		*	L39-0148-05	TRAP COIL		
R1 R2 R3 R4 R5		*	RD41DB2B220J RD41DB2B624J RD41DB2B513J RD41DB2B753J RD41DB2B104J	CYLND CHIP R 22 J 1/8W CYLND CHIP R 620K J 1/8W CYLND CHIP R 51K J 1/8W CYLND CHIP R 75K J 1/8W CYLND CHIP R 100K J 1/8W		
R6 R7 R8 R9 R10			RD41DB2B101J RD41DB2B224J RD41DB2B123J RD41DB2B333J RD41DB2B683J	CYLND CHIP R 100 J 1/8W CYLND CHIP R 220K J 1/8W CYLND CHIP R 12K J 1/8W CYLND CHIP R 33K J 1/8W CYLND CHIP R 68K J 1/8W		
R11 R12 R13 R14 R15			RD41DB2B182J RD41DB2B104J RD41DB2B473J RD41DB2B684J RD41DB2B431J	CYLND CHIP R 1.8K J 1/8W CYLND CHIP R 100K J 1/8W CYLND CHIP R 47K J 1/8W CYLND CHIP R 680K J 1/8W CYLND CHIP R 430 J 1/8W		
R16 VR1		*	RD41DB2B224J R12-0096-05	CYLND CHIP R 220K J 1/8W TRIMMING POT. (220)DK LEVEL		
IC1 IC2		*	TDA1579T AN6556S	IC(DECODER) IC(OP AMP X2)		
SYNTHESIZER UNIT (X14-2172-70: E,T, 2-72: EF)						
PL1	2C	*	B30-1192-05	LAMP		
C6 C7 C8 C9 ,10 C11			C90-0824-05 C90-0478-05 C90-0477-05 CE04DW1C102M CE04DW1A101M	ELECTRO 1UF 50WV ELECTRO 10UF 16WV ELECTRO 0.1UF 50WV ELECTRO 1000UF 16WV ELECTRO 100UF 10WV		
C12 -15 C16			CE04DW1A221M C90-0478-05	ELECTRO 220UF 10WV ELECTRO 10UF 16WV		

E: Scandinavia & Europe K: USA

P: Canada

EF: France Made

U: PX(Far East, Hawaii)

T: England

M: Other Areas

UE: AAFES(Europe)

X: Australia

⚠ Indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
C17			C90-0494-05	ELECTR0 22UF 6.3WV		
C19			C90-0482-05	ELECTR0 4.7UF 25WV		
C20 ,21			C90-0478-05	ELECTR0 10UF 16WV		
C22			C90-0824-05	ELECTR0 1UF 50WV		
C23			C90-0508-05	ELECTR0 2.2UF 50WV		
C24 ,25		*	CK73FB1E273K	CHIP C 0.027UF K		
C26			C90-0508-05	ELECTR0 2.2UF 50WV		
C29			CK73FB1E103K	CHIP C 0.010UF K		
C31 ,32			CK73FB1E223K	CHIP C 0.022UF K		
C33 -35			C90-1263-05	ELECTR0 100UF 16WV		
C36 ,37			CK73FB1E223K	CHIP C 0.022UF K		
C38 ,39			CC73FCH1H100D	CHIP C 10PF D		
C40			C90-0495-05	ELECTR0 47UF 6.3WV		
C41 ,42			CK73FB1E223K	CHIP C 0.022UF K		
C43			C90-0478-05	ELECTR0 10UF 16WV		
C44			CK73FB1E103K	CHIP C 0.010UF K		
C46			C90-0478-05	ELECTR0 10UF 16WV		
C47			C90-0508-05	ELECTR0 2.2UF 50WV		
C48			CF92V1H104J	MF 0.10UF J		
C49			C90-0824-05	ELECTR0 1UF 50WV		
C50			CK73FB1H152K	CHIP C 1500PF K		
C51			CF92V1H104J	MF 0.10UF J		
C52			CF92V1H154J	MF 0.15UF J		
C53			CS15E1C010M	TANTAL 1.0UF 16WV		
C54			CK73FB1E223K	CHIP C 0.022UF K		
C55			CE04DW1A101M	ELECTR0 100UF 10WV		
C56 ,57			CC73FCH1H100D	CHIP C 10PF D		
C58			C90-0508-05	ELECTR0 2.2UF 50WV		
C59			CK73FB1E223K	CHIP C 0.022UF K		
C60		*	CK73FB1E273K	CHIP C 0.027UF K		
C61 ,62		*	C90-0831-05	ELECTR0 33UF 10WV		
C63			CK73FB1E273K	CHIP C 0.027UF K		
C64			CK73FB1E223K	CHIP C 0.022UF K		
C65			C90-0481-05	ELECTR0 3.3UF 50WV		
C66			CE04DW1A101M	ELECTR0 100UF 10WV		
C67			CK73FB1E223K	CHIP C 0.022UF K		
C69			CK73FB1E103K	CHIP C 0.010UF K		
C71			CK73FB1E223K	CHIP C 0.022UF K		
C72			CK73EB1E393K	CHIP C 0.039UF K		
C73			C90-0478-05	ELECTR0 10UF 16WV		
C75			C90-0477-05	ELECTR0 0.1UF 50WV		
C76 ,77			CK73FB1H562K	CHIP C 5600PF K		
C80 ,81			CC73FSL1H561J	CHIP C 560PF J		
C82 ,83			CE04DW1E4R7M	ELECTR0 4.7UF 25WV		
C84 ,85			CE04DW1A101M	ELECTR0 100UF 10WV		
C86 ,87			CC73FSL1H561J	CHIP C 560PF J		
C88 ,89			CE04DW1A220M	ELECTR0 22UF 10WV		
C90 ,91			CE04DW1E4R7M	ELECTR0 4.7UF 25WV		
C92 ,93			CE04DW1A101M	ELECTR0 100UF 10WV		
C94 ,95			CC73FSL1H561J	CHIP C 560PF J		
C96 ,97			CE04DW1A220M	ELECTR0 22UF 10WV		
C114			CK73FB1E223K	CHIP C 0.022UF K		
C115			C90-0495-05	ELECTR0 47UF 6.3WV		
C116			CK73FB1E223K	CHIP C 0.022UF K		
C117,118			CK73FB1E103K	CHIP C 0.010UF K		

E: Scandinavia & Europe K: USA P: Canada

U: PX(Far East, Hawaii) T: England M: Other Areas

UE: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
C119			C90-0478-05	ELECTR0 10UF 16WV		
C120			C90-0508-05	ELECTR0 2. 2UF 50WV		
C121			CK73EB1E393K	CHIP C 0. 039UF K		
C122			CK73FB1E103K	CHIP C 0. 010UF K		
C123			C92-0002-05	CHIP TAN 0. 22UF 35WV		
C124			CK73FB1E103K	CHIP C 0. 010UF K		
C125,126			CK73EB1H103K	CHIP C 0. 010UF K		
C127,128			CK73FB1E103K	CHIP C 0. 010UF K		
C129			CE04DW1C222M	ELECTR0 2200UF 16WV		
C130,131			CK73FB1H103K	CHIP C 0. 010UF K		
LH1 ,2			J19-2826-05	HOLDER		
LH4			J19-2826-05	HOLDER		
X1			L77-1112-05	CRYSTAL RESONATOR(4. 1943MHZ)		
X2			L77-1110-05	CRYSTAL RESONATOR(7. 2MHZ)		
J2			R92-0338-05	CLYND CHIP R 0 0HM		
J4 -6			R92-0670-05	CHIP R 0 0HM		
J9			R92-0670-05	CHIP R 0 0HM		
J11			R92-0670-05	CHIP R 0 0HM		
J14 -16			R92-0670-05	CHIP R 0 0HM		
J18			R92-0670-05	CHIP R 0 0HM		
J21			R92-0670-05	CHIP R 0 0HM		
J26			R92-0670-05	CHIP R 0 0HM		
J28			R92-0670-05	CHIP R 0 0HM		
J30			R92-0338-05	CLYND CHIP R 0 0HM		
J32			R92-0338-05	CLYND CHIP R 0 0HM		
J33			R92-0338-05	CLYND CHIP R 0 0HM		
J35			R92-0338-05	CLYND CHIP R 0 0HM		
R10			RK73FB2A473J	CHIP R 47K J 1/10W		
R11 ,12			RK73FB2A103J	CHIP R 10K J 1/10W		
R13			RK73FB2A473J	CHIP R 47K J 1/10W		
R14			RK73FB2A102J	CHIP R 1. 0K J 1/10W		
R16			RD14DB2H4R7J	SMALL-RD 4. 7 J 1/2W		
R17			RK73FB2A473J	CHIP R 47K J 1/10W		
R18			RD41DB2B331J	CYLND CHIP R 330 J 1/8W		
R19			RK73FB2A472J	CHIP R 4. 7K J 1/10W		
R20			RK73FB2A222J	CHIP R 2. 2K J 1/10W		
R21			RD14DB2H100J	SMALL-RD 10 J 1/2W		
R22 -24			RK73FB2A223J	CHIP R 22K J 1/10W		
R25			RK73FB2A473J	CHIP R 47K J 1/10W		
R26			RD14DB2H102J	SMALL-RD 1. 0K J 1/2W		
R27 -29			RK73FB2A223J	CHIP R 22K J 1/10W		
R30 -32			RK73FB2A222J	CHIP R 2. 2K J 1/10W		
R33			RK73FB2A332J	CHIP R 3. 3K J 1/10W		
R34			RK73FB2A223J	CHIP R 22K J 1/10W		
R35			RD14DB2H4R7J	SMALL-RD 4. 7 J 1/2W		
R36			RK73FB2A103J	CHIP R 10K J 1/10W		
R37 ,38			RK73FB2A472J	CHIP R 4. 7K J 1/10W		
R39 ,40			RK73FB2A223J	CHIP R 22K J 1/10W		
R41			RK73FB2A472J	CHIP R 4. 7K J 1/10W		
R42 ,43			RK73FB2A103J	CHIP R 10K J 1/10W		
R45			RK73FB2A102J	CHIP R 1. 0K J 1/10W		
R46 -49			RK73FB2A473J	CHIP R 47K J 1/10W		
R50			RK73FB2A103J	CHIP R 10K J 1/10W		
R53			RK73FB2A222J	CHIP R 2. 2K J 1/10W		

ET
EF

E: Scandinavia & Europe K: USA P: Canada

U: PX(Far East, Hawaii) T: England M: Other Areas

UE: AAFES(Europe) X: Australia

EF: France Made

⚠ indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
R54 ,55 R56 ,57 R68 R69 R70			RK73FB2A223J RK73FB2A473J RK73FB2A222J RK73FB2A472J RK73FB2A222J	CHIP R 22K J 1/10W CHIP R 47K J 1/10W CHIP R 2.2K J 1/10W CHIP R 4.7K J 1/10W CHIP R 2.2K J 1/10W		
R71 R72 -75 R76 R77 R78			RK73FB2A472J RK73FB2A223J RK73FB2A103J RK73FB2A222J RK73FB2A472J	CHIP R 4.7K J 1/10W CHIP R 22K J 1/10W CHIP R 10K J 1/10W CHIP R 2.2K J 1/10W CHIP R 4.7K J 1/10W		
R79 R80 R82 ,83 R84 R85 ,86			RK73FB2A222J RK73FB2A472J RK73FB2A181J RK73FB2A473J RK73FB2A332J	CHIP R 2.2K J 1/10W CHIP R 4.7K J 1/10W CHIP R 180 J 1/10W CHIP R 47K J 1/10W CHIP R 3.3K J 1/10W		
R87 R88 R89 R90 R91			RK73FB2A473J RK73FB2A332J RK73FB2A473J RK73FB2A332J RK73FB2A473J	CHIP R 47K J 1/10W CHIP R 3.3K J 1/10W CHIP R 47K J 1/10W CHIP R 3.3K J 1/10W CHIP R 47K J 1/10W		
R92 R93 R94 R95 R96			RK73FB2A472J RK73FB2A222J RK73FB2A103J RK73FB2A563J RK73FB2A223J	CHIP R 4.7K J 1/10W CHIP R 2.2K J 1/10W CHIP R 10K J 1/10W CHIP R 56K J 1/10W CHIP R 22K J 1/10W		
R97 R98 -100 R101 R102,103 R104			RK73FB2A104J RK73FB2A223J RK73FB2A103J RK73FB2A223J RK73FB2A473J	CHIP R 100K J 1/10W CHIP R 22K J 1/10W CHIP R 10K J 1/10W CHIP R 22K J 1/10W CHIP R 47K J 1/10W		
R107 R108 R109,110 R111 R112			RK73FB2A103J RK73FB2A104J RK73FB2A392J RK73FB2A122J RK73FB2A103J	CHIP R 10K J 1/10W CHIP R 100K J 1/10W CHIP R 3.9K J 1/10W CHIP R 1.2K J 1/10W CHIP R 10K J 1/10W		
R113 R114 R115,116 R117,118 R119			RK73FB2A104J RK73FB2A223J RK73FB2A473J RK73FB2A103J RK73FB2A104J	CHIP R 100K J 1/10W CHIP R 22K J 1/10W CHIP R 47K J 1/10W CHIP R 10K J 1/10W CHIP R 100K J 1/10W		
R120 R121 R122 R123,124 R125			RK73FB2A103J RK73FB2A473J RK73FB2A104J RK73FB2A473J RK73FB2A103J	CHIP R 10K J 1/10W CHIP R 47K J 1/10W CHIP R 100K J 1/10W CHIP R 47K J 1/10W CHIP R 10K J 1/10W		
R126 R127 R128 R129 R130			RK73FB2A104J RK73FB2A103J RK73FB2A104J RK73FB2A103J RK73FB2A104J	CHIP R 100K J 1/10W CHIP R 10K J 1/10W CHIP R 100K J 1/10W CHIP R 10K J 1/10W CHIP R 100K J 1/10W		
R133 R134 R135 R136 R137			RK73FB2A222J RK73FB2A472J RK73FB2A222J RK73FB2A472J RK73FB2A103J	CHIP R 2.2K J 1/10W CHIP R 4.7K J 1/10W CHIP R 2.2K J 1/10W CHIP R 4.7K J 1/10W CHIP R 10K J 1/10W		

E: Scandinavia & Europe K: USA

P: Canada

U: PX(Far East, Hawaii)

T: England

M: Other Areas

UE: AAFES(Europe)

X: Australia

 indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
R138			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R139			RK73FB2A473J	CHIP R 47K J 1/10W		
R140			RK73FB2A103J	CHIP R 10K J 1/10W		
R141-144			RK73FB2A474J	CHIP R 470K J 1/10W		
R145			RK73FB2A104J	CHIP R 100K J 1/10W		
R146-150			RK73FB2A103J	CHIP R 10K J 1/10W		
R151			RK73FB2A333J	CHIP R 33K J 1/10W		
R152,153			RK73FB2A103J	CHIP R 10K J 1/10W		
R154		*	RK73FB2A334J	CHIP R 330K J 1/10W		
R155			RK73FB2A104J	CHIP R 100K J 1/10W		
R156,157			RK73FB2A473J	CHIP R 47K J 1/10W		
R158			RK73FB2A223J	CHIP R 22K J 1/10W		
R159-162			RK73FB2A103J	CHIP R 10K J 1/10W		
R163		*	RK73FB2A334J	CHIP R 330K J 1/10W		
R164			RK73FB2A103J	CHIP R 10K J 1/10W		
R165			RK73FB2A104J	CHIP R 100K J 1/10W		
R166			RK73FB2A333J	CHIP R 33K J 1/10W		
R167,168		*	RK73FB2A334J	CHIP R 330K J 1/10W		
R169,170			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R171,172		*	RK73FB2A334J	CHIP R 330K J 1/10W		
R173-175			RK73FB2A103J	CHIP R 10K J 1/10W		
R176-178			RK73FB2A473J	CHIP R 47K J 1/10W		
R179			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R180			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R181			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R182			RK73FB2A103J	CHIP R 10K J 1/10W		
R183			RK73FB2A101J	CHIP R 100 J 1/10W		
R184			RK73FB2A473J	CHIP R 47K J 1/10W		
R187,188		*	RK73FB2A394J	CHIP R 390K J 1/10W		
R189			RK73FB2A560J	CHIP R 56 J 1/10W		
R191			RK73FB2A103J	CHIP R 10K J 1/10W		
R192			RK73FB2A220J	CHIP R 22 J 1/10W		
R193			RK73FB2A101J	CHIP R 100 J 1/10W		
R194			RK73FB2A471J	CHIP R 470 J 1/10W		
R195			RK73FB2A103J	CHIP R 10K J 1/10W		
R196,197			RK73FB2A152J	CHIP R 1.5K J 1/10W		
R198			RK73FB2A101J	CHIP R 100 J 1/10W		
R199			RK73FB2A471J	CHIP R 470 J 1/10W		
R200			RK73FB2A103J	CHIP R 10K J 1/10W		
R201			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R202		*	RK73FB2A334J	CHIP R 330K J 1/10W		
R203			RK73FB2A223J	CHIP R 22K J 1/10W		
R205			RK73FB2A103J	CHIP R 10K J 1/10W		
R206			RK73FB2A223J	CHIP R 22K J 1/10W		
R207			RK73FB2A333J	CHIP R 33K J 1/10W		
R208			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R209			RK73FB2A103J	CHIP R 10K J 1/10W		
R210			RK73FB2A333J	CHIP R 33K J 1/10W		
R211			RK73FB2A104J	CHIP R 100K J 1/10W		
R212			RK73FB2A103J	CHIP R 10K J 1/10W		
R215			RK73FB2A103J	CHIP R 10K J 1/10W		
R216			RK73FB2A682J	CHIP R 6.8K J 1/10W		
R217			RK73FB2A333J	CHIP R 33K J 1/10W		
R218			RK73FB2A103J	CHIP R 10K J 1/10W		
R219			RK73FB2A100J	CHIP R 10 J 1/10W		

E: Scandinavia & Europe K: USA P: Canada

U: PX(Far East, Hawaii) T: England M: Other Areas

UE: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
R220			RK73FB2A153J	CHIP R 15K J 1/10W		
R221,222			RK73FB2A303J	CHIP R 30K J 1/10W		
R223,224			RK73FB2A103J	CHIP R 10K J 1/10W		
R225,226			RK73FB2A682J	CHIP R 6.8K J 1/10W		
R227,228			RK73FB2A223J	CHIP R 22K J 1/10W		
R229			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R230			RK73FB2A562J	CHIP R 5.6K J 1/10W		
R231			RK73FB2A101J	CHIP R 100 J 1/10W		
R232,233			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R234,235			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R236,237			RK73FB2A103J	CHIP R 10K J 1/10W		
R238,239			RK73FB2A181J	CHIP R 180 J 1/10W		
R240,241			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R248,249			RK73FB2A223J	CHIP R 22K J 1/10W		
R250			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R251			RK73FB2A562J	CHIP R 5.6K J 1/10W		
R252,253			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R254			RK73FB2A101J	CHIP R 100 J 1/10W		
R255,256			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R257,258			RK73FB2A103J	CHIP R 10K J 1/10W		
R259,260			RK73FB2A181J	CHIP R 180 J 1/10W		
R261,262			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R283			RK73FB2A152J	CHIP R 1.5K J 1/10W		
R285			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R286-290			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R292,293			RK73FB2A223J	CHIP R 22K J 1/10W		
R296-303			RK73FB2A102J	CHIP R 1.0K J 1/10W		
VR2			R12-3097-05	TRIMMING POT. (22K) SEEK ST LVL		
VR3			R12-3096-05	TRIMMING POT. (10K) STOP LEVEL		
S1	3D		S31-2100-05	SLIDE SWITCH (PREGUT)		
D2			DAN202K	DIODE		
D3			RD11JS(B2)	ZENER DIODE		
D4			DLS1585	DIODE		
D4			RLS-73	DIODE		
D5			ERA15-01Y1	DIODE		
D6			DAN202K	DIODE		
D7			ERA15-01Y1	DIODE		
D8			DSM1A1	DIODE		
D9			DAP202K	DIODE		
D10			DLS1585	DIODE		
D10			RLS-73	DIODE		
D11			RD5.1JS(B2)	ZENER DIODE		
D12			DAN202K	DIODE		
D13 ,14			DLS1585	DIODE		
D13 ,14			RLS-73	DIODE		
D15			RD9.1JS(B3)	ZENER DIODE		
D17 ,18			DLS1585	DIODE		
D17 ,18			RLS-73	DIODE		
D20 ,21			DLS1585	DIODE		
D20 ,21			RLS-73	DIODE		
D25			DAP202K	DIODE		
D26 ,27			DLS1585	DIODE		
D26 ,27			RLS-73	DIODE		
D28 -31			ERA15-01Y1	DIODE		

E: Scandinavia & Europe K: USA

P: Canada

U: PX(Far East, Hawaii)

T: England

M: Other Areas

UE: AAFES(Europe)

X: Australia

⚠ indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
D32			RD5. 6JS(B2)	ZENER DIODE		
D33			DLS1585	DIODE		
D33			RLS-73	DIODE		
D35			RD5. 1JS(B2)	ZENER DIODE		
D36 -49			DLS1585	DIODE		
D36 -49			RLS-73	DIODE		
D51 -58			DLS1585	DIODE		
D51 -58			RLS-73	DIODE		
D61			ERA15-D1Y1	DIODE		
D63			DLS1585	DIODE		
D63			RLS-73	DIODE		
D65 -73			DLS1585	DIODE		
D65 -73			RLS-73	DIODE		
D74			1SS101	DIODE		
D75			1SS193	DIODE		
D76			DAN202K	DIODE		
D77			DLS1585	DIODE		
D77			RLS-73	DIODE		
D79			DLS1585	DIODE		
D79			RLS-73	DIODE		
D80			DAN202K	DIODE		
D81			DLS1585	DIODE		
D81			RLS-73	DIODE		
D85 ,86			DAN202K	DIODE		
IC1			751086-604-1B	IC(MICROPROCESSOR)		
IC2			LM7001	IC(PLL FREQUENCY SYNTHESIZER)		
IC3 ,4			UPD4081BG	IC(AND X4)		
IC5		*	BA3708F	IC(MUSIC TRUCK SENSOR)		
IC6 ,7			UPC4570G2	IC(OP AMP X2)		
Q4			DTC124EK	DIGITAL TRANSISTOR		
Q5			2SC2412K	TRANSISTOR		
Q6			DTC124EK	DIGITAL TRANSISTOR		
Q9			2SB1015	TRANSISTOR		
Q10			2SC2412K	TRANSISTOR		
Q11			2SB822F	TRANSISTOR		
Q12 ,13			2SC2412K	TRANSISTOR		
Q14 ,15			2SA1037K	TRANSISTOR		
Q16		*	2SB822F(Q,R)	TRANSISTOR		
Q17			2SC2412K	TRANSISTOR		
Q18			2SB822F	TRANSISTOR		
Q19			2SC2412K	TRANSISTOR		
Q20			2SB822F	TRANSISTOR		
Q21			2SC2412K	TRANSISTOR		
Q22			2SA1037K	TRANSISTOR		
Q23			2SB1015	TRANSISTOR		
Q24 ,25			2SC2412K	TRANSISTOR		
Q26			DTA144EK	DIGITAL TRANSISTOR		
Q29			2SA1037K	TRANSISTOR		
Q30			2SC2412K	TRANSISTOR		
Q35 ,36			2SB822F	TRANSISTOR		
Q37 ,38			2SC2412K	TRANSISTOR		
Q39 -41			2SB822F	TRANSISTOR		
Q42			DTC124EK	DIGITAL TRANSISTOR		
Q43 -45			2SD1330	TRANSISTOR		
Q46			DTC124EK	DIGITAL TRANSISTOR		

E: Scandinavia & Europe K: USA

P: Canada

U: PX(Far East, Hawaii)

T: England

M: Other Areas

UE: AAFES(Europe)

X: Australia

▲ indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
Q47 Q48 Q49 Q50 -52 Q53			2SC2412K DTA144EK 2SA1037K 2SC2412K(S) 2SA1037K	TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q54 Q55 Q56 .57 Q58 -69 Q70 .71			2SC2412K(S) 2SA1037K 2SC2412K DTA144EK DTC124EK	TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR		
Q72 .73 Q74 Q75 Q76 Q79			2SB822F DTC124EK 2SA1036K DTA144EK DTC124EK	TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR		
Q80 Q81 -85 Q86 Q88 .89 Q90			2SK669 2SC2412K(S) 2SC2412K DTA144EK DTC143TK	FET TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR		
Q91 -95 Q99 .100			DTC144EK 2SC2412K	DIGITAL TRANSISTOR TRANSISTOR		
271	3D	*	W02-0766-05	TUNER ASSY		
SWITCH UNIT (X25-2952-71: E,T, 2-73: EF)						
D1 D6 .7 D9 -21 LCD1 PL1 .2	3C 3C 3C 3C 3C	* * * * *	B30-1130-05 B30-1190-05 B30-1190-05 B38-0100-05 B30-1186-05	LED(SLH-38VC3) TPC LED LED LIQUID CRYSTAL LAMP		
PL3 .4 PL5 -7 PL8 -10	3C 3C 3C	* * *	B30-1187-05 B30-1189-05 B30-1188-05	LAMP LAMP LAMP		
C1 C2		* *	C91-0755-05 C91-0768-05	CERAMIC 680PF K CERAMIC 0.0082UF M		
S5 S7 -28	3C 3C		S40-1096-05 S40-1096-05	PUSH SWITCH (LOUD) PUSH SWITCH		
IC1		*	LC7582	IC(LCD DRIVER)		
TUNER ASS'Y (W02-0766-05)						
D1 -4 D1 -4 D1 -4 D5 -7 D5 -7			1S3110 1S553 1S1555 SVC321 1SV149	DIODE DIODE DIODE DIODE DIODE		
FET1 FET2 TR1 -5 TR1 -5 TR1 -5			2SK163 2SK184 2SC2620 2SC2714 2SC2814	FET FET TRANSISTOR TRANSISTOR TRANSISTOR		
FM FRONT-END ASS'Y (W02-0768-05)						
D1 D2 -5 FET1			1SV172 1SV103 3SK126	DIODE DIODE FET		

E: Scandinavia & Europe K: USA P: Canada
 U: PX(Far East, Hawaii) T: England M: Other Areas
 UE: AAFES(Europe) X: Australia

EF: France Made

 indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
SCREW SET (N99-0099-05)						
-			N09-0335-05	SCREW (Ø5X16)		
-			N09-0366-05	HEX BOLT (M5X20)		
-			N10-1050-46	HEX NUT (M5)		
-			N14-0117-05	FLUNGE NUT (M5)		
CASSETTE MECHANISM ASS'Y (D40-0567-05)						
4	3A		D03-0249-08	REEL DISK ASSY		
5	3B		D10-1587-08	LEVER ASSY (FR ARM)		
6	1A		D10-1588-08	LEVER ASSY (P. R ARM)F		
7	1B		D10-1589-08	LEVER ASSY (P. R ARM)R		
8	3A		D10-1590-18	LEVER ASSY (POWER ARM)		
9	2A		D10-1591-08	LEVER ASSY (MODE PLATE)		
10	1B		D10-1606-08	LEVER ASSY (SELECT ARM)		
11	1B		D10-1691-08	LEVER ASSY (POWER PLATE)		
12	1B		D10-1608-08	LEVER ASSY (CHIP ARM)		
13	2A		D10-1592-08	LEVER ASSY (T CRANK)		
14	2B		D10-1593-08	LEVER ASSY (TIMING ARM)		
15	1A		D10-1594-08	ARM (HOUSING ARM)		
16	3A		D13-0322-08	GEAR ASSY (REEL PUSH)		
17	3B		D13-0321-08	GEAR ASSY (FF GEAR)		
18	2B		D13-0323-08	GEAR ASSY (RVS GEAR)		
19	2B		D13-0324-08	GEAR ASSY (EJ GEAR)		
20	3B		D01-0083-08	FLYWHEEL ASSY		
21	3A		D15-0240-08	PULLEY ASSY (TENSION PULLEY)		
22	3B		D10-1690-08	ARM		
25	2B		D10-1595-08	LEVER (RVS PLATE)		
26	2A		D10-1596-08	LEVER (FF PLATE)		
27	2A		D10-1597-08	LEVER (BRAKE PLATE)F		
28	2B		D10-1598-08	LEVER (BRAKE PLATE)R		
29	2A		J19-2620-08	BRACKET (PLUNGER)AT		
30	2B		J19-2621-08	BRACKET (PLUNGER)B		
31	2B		D10-1609-08	ARM (TRIGGER PLATE)		
32	3B		D10-1689-08	ARM (RVS TRIGGER)		
33	2B		D10-1611-08	LEVER (EJ PLATE)		
34	2B		D10-1612-08	LEVER ASSY (RESET PLATE)		
35	1B		J19-2624-08	BRACKET		
36	1B		D10-1688-08	ARM (ADJUSTER)		
37	1A		G02-0383-08	PLATE SPRING		
38	1A		J19-2622-08	HOLDER (CASSETTE HOUSING)		
39	3B		D10-1600-08	ARM (GEAR SHAFT GUIDE)		
40	1A	*	J19-2876-08	BRACKET (TRO)		
41	1A		D10-1601-08	ARM (OVER CENTER PLATE)		
42	2B		D10-1613-08	LEVER (SLIDE PLATE)		
43	2A		D10-1602-08	SLIDER (PLUNGER BUFFER)		
45	2A		D10-1603-08	ARM (FF CRANK)		
46	1B		D10-1604-08	ARM (AZIMUTH ARM)		
47	1B		D14-0137-08	ROLLER (H/P) C		
48	1A		J90-0162-08	GUIDE (CATCH)		
49	1A		D14-0138-08	ROLLER (H/A)		
50	3A, 3B		D13-0318-08	GEAR (IDLER)		
51	3A		B09-0056-08	CAP (REEL DRIVER)		
52	3A		D13-0319-08	GEAR (Ø15.2)		
53	3B		D13-0320-08	GEAR (INPUT)		
54	2B		D13-0325-08	GEAR (A)		

E: Scandinavia & Europe K: USA P: Canada

U: PX(Far East, Hawaii) T: England M: Other Areas

UE: AAFES(Europe) X: Australia

△ indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
55	3B		D13-0326-08	GEAR (B)		
56	3B		D13-0327-08	GEAR (C)		
57	3B		D13-0328-08	GEAR (MODE)		
59	2A	*	J32-0320-08	STUD		
60	2A		D14-0139-08	ROLLER (TIMING/A)		
62	2A		D14-0140-08	ROLLER (H/P ROLLER) A		
63	2A		D14-0141-08	ROLLER (H/P ROLLER) B		
64	2B		D14-0142-08	ROLLER (MODE)		
65	2B		J30-0214-08	SPACER		
67	1A, 1B		N09-1583-08	SCREW		
69	3B		G01-1860-08	TENSION SPRING		
70	1A		G01-1794-08	TORSION SPRING (P.R ARM) F		
71	1B		G01-1795-08	TORSION SPRING (P.R ARM) R		
72	1A		G01-1796-08	TENSION SPRING (H/P)		
73	2B		G01-1797-08	TENSION SPRING (IDLER)		
74	3A		G01-1798-08	TORSION SPRING (FF ARM)		
75	2A, 2B		G01-1799-08	TENSION SPRING (BRAKE)		
76	2B		G01-1805-08	TORSION SPRING (TRIGGER)		
77	3B		G01-1806-08	TENSION SPRING (RVS/T)		
78	1B		G01-1807-08	TENSION SPRING (CHIP ARM)		
79	2B		G01-1808-08	TENSION SPRING (STARTER)		
80	2B		G01-1809-08	TENSION SPRING (EJ/P)		
81	2B		G01-1810-08	TENSION SPRING (RESET/P)		
82	3A		G01-1793-08	COMPRESSION SPRING (SLEEVE)		
83	1B		G01-1800-08	COMPRESSION SPR (AZIMUTH LOCK)		
84	2A		G01-1801-08	TENSION SPRING (POWER)		
85	2B		G01-1802-08	TORSION SPRING (TIMING ARM)		
86	1A		G01-1803-08	TORSION SPRING (REVERSE)		
87	1B		G01-1823-08	TENSION SPRING		
88	2A		G01-1804-08	TENSION SPRING (BUFFER)		
89	2A		G11-1145-08	CUSHION (CH)		
90	3B		D16-0127-08	BELT		
91	1A		D10-1605-08	ROD (OVER CENTER ROD)		
92	1B		N09-1584-08	SCREW (AZIMUTH)		
93	2A		J30-0213-08	SPACER (T)		
94	1B		G11-1144-08	SOFT TAPE		
95	1A		T43-0047-08	MOTOR ASSY		
96	1A		T31-0032-08	PLAYBACK HEAD		
103	1B, 2B		T94-0094-08	SOLENOID (PLUNGER)		
104	2A		T94-0092-08	SOLENOID (PLUNGER)		
105	2A		T94-0093-08	SOLENOID (PLUNGER)		
110	1B		N09-1585-08	SCREW (M1.7X7)		
111	2A		N09-1586-08	SCREW (M2X5.5)		
112	3A, 1B		N09-1587-08	SCREW (M2X3)		
113	2B		N09-1588-08	SCREW (M2X5)		
115	1A, 2A		N09-1589-08	SCREW (M2X4)		
116	2B		N09-1590-08	SCREW (M2X5)		
120	2A, 3B		N24-3012-41	E TYPE RETAINING RING (Ø1.2)		
121	2A, 2B		N24-3015-41	E TYPE RETAINING RING (Ø1.5)		
122	2A, 2B		N29-0097-08	E TYPE RETAINING RING (Ø1.6X3.5)		
123	1A		N24-3025-41	E TYPE RETAINING RING (Ø2.5)		
124	3A, 1B		N24-3030-41	E TYPE RETAINING RING (Ø3)		
130	3A, 3B		N19-0374-05	FLAT WASHER (Ø1.2X3X.25)		
131	3A, 3B		N19-0375-05	FLAT WASHER (Ø1.6X3.2X.25)		
132	3B		N19-0987-08	FLAT WASHER (Ø1.6X3.2X.5)		

E: Scandinavia & Europe K: USA

P: Canada

U: PX(Far East, Hawaii)

T: England

M: Other Areas

UE: AAFES(Europe)

X: Australia

⚠ indicates safety critical components.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
133	2B, 3B		N19-0988-08	FLAT WASHER (Ø2.1X3.5X.25)		
134	3A, 3B		N19-0989-08	FLAT WASHER (Ø2.1X4X.25)		
135	3A		N19-0990-08	FLAT WASHER (Ø2.1X4X.25)		
136	2A	*	N19-1103-08	FLAT WASHER (Ø2.1X4X.5)		
137	3B	*	N19-1102-08	FLAT WASHER (Ø2.1X3.5X.4)		
138	3A, 3B	*	N19-1104-08	FLAT WASHER (Ø2.1X3.5X0.4)		
143	3A		T95-0034-08	PHOTO REFLECTOR		
146	1A	*	J31-0813-08	CALLER		
150	3A	*	D03-0263-08	REEL DISK ASSY		
151	1B	*	J25-5728-08	PRINTED WIRING BOARD		
152	2B		A11-0191-08	SUB CHASSIS ASSY		
-			J61-0077-08	WIRE BAND		
-		*	J61-0082-08	WIRE BAND		
S1	1B		S46-1078-08	LEAF SWITCH (MLS-4)		
S2	1B		S31-4020-08	SLIDE SWITCH (HEAD)		
S3	1B		S46-1077-08	LEAF SWITCH (MLS-2)		

E: Scandinavia & Europe K: USA

P: Canada

U: PX(Far East, Hawaii)

T: England

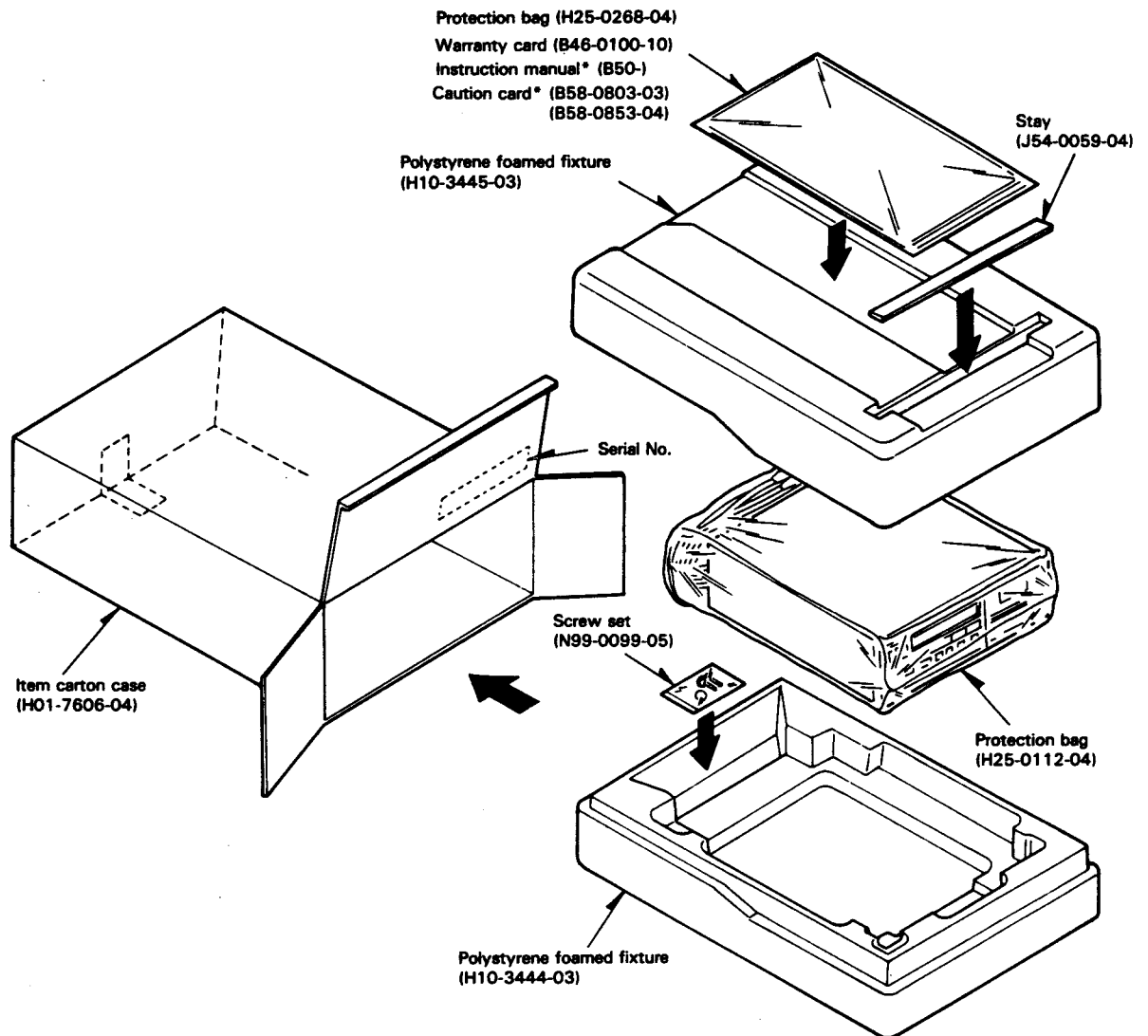
M: Other Areas

UE: AAFES(Europe)

X: Australia

⚠ indicates safety critical components.

PACKING



* Refer to parts list on page 45.

SPECIFICATIONS

Specification subject to change without notice.

FM Tuner Section

Frequency Range	87.5 ~ 108.0 MHz
Usable Sensitivity (DIN)	1.1 μ V/75 ohms
Stereo Sensitivity (S/N = 46 dB)	1.6 μ V/75 ohms
Frequency Response (± 4.5 dB)	30 ~ 15,000 Hz
Signal to Noise Ratio (IEC-A)	70 dB
Selectivity (DIN)	70 dB
Stereo Separation (1 kHz)	40 dB
19 kHz Carrier Leakage	50 dB

MW Tuner Section

MW Frequency Range	531 ~ 1,611 kHz
MW Usable Sensitivity	30 μ V

LW Tuner Section

LW Frequency Range	153 ~ 281 kHz
LW Usable Sensitivity	60 μ V

Cassette Deck Section

Tape Speed	4.76 cm/s
Wow and Flutter (WRMS)	0.12% (WRMS)
Wow and Flutter (DIN)	0.2% (W-PEAK)
Fast Winding Time (C-60)	100 sec
Frequency Response (120 μ s)	30 Hz ~ 16 kHz (+4 dB, -6 dB)
(70 μ s)	30 Hz ~ 18 kHz (+4 dB, -6 dB)
Stereo Separation (1 kHz)	40 dB
Signal to Noise Ratio (IEC-A)	
NR OFF	55 dB
Dolby-B	65 dB
Dolby-C	72 dB

Audio Section

Maximum Output Power (1 kHz, 4 ohms)	8 W \times 2
	6.5 W \times 4
Rated Output Power (10% THD, 1 kHz, 4 ohms)	6 W \times 2
(1% THD, 1 kHz, 4 ohms)	5 W \times 2
Tone Action	Bass: 100 Hz \pm 10 dB
	Treble: 10 kHz \pm 10 dB
Preout Level/Impedance	Normal: 300 mV/180 ohms
	High: 1,000 mV/180 ohms

General

Operating Voltage (GND)	14.4 V (11 ~ 16 V)
Current Consumption	2.7 A at Rated Power
Dimensions (W \times H \times D)	188 \times 58 \times 177 mm
	(7-3/8 \times 2-5/16 \times 6-15/16 in.)
Body Size (W \times H \times D)	182 \times 52 \times 159 mm
	(7-3/16 \times 2-1/16 \times 6-1/4 in.)
Weight	2.0 kg (4.6 lb)

Kenwood follows a policy of continuous advancements in development.

For this reason specifications may be changed without notice.

DOLBY and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.

Kenwood poursuit une politique de progrès constants en ce qui concerne le développement.

Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

La marque DOLBY et le double "D" sont des marques déposées des Dolby Laboratories.

Le système de réduction du bruit de fond est fabriqué sous licence des Dolby Laboratories.

Kenwood strebt ständige Verbesserungen in der Entwicklung an.

Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

DOLBY und Doppel-D-Symbol sind eingetragene Warenzeichen der Dolby Laboratories.

Dolby-Rauschunterdrückung mit Lizenz der Dolby Laboratories gefertigt.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD CORPORATION

Shionogi Shibuya Building, 17-5, 2-chome Shibuya, Shibuya-ku, Tokyo 150 Japan

KENWOOD U.S.A. CORPORATION

2201 East Dominguez Street, Long Beach, CA 90810;
550 Clark Drive, Mount Olive, NJ 07828, U.S.A.

KENWOOD ELECTRONICS CANADA INC.

P.O. Box 1075 959 Gana Court, Mississauga, Ontario, Canada L4T 4C2

KENWOOD ELECTRONICS BENELUX N.V.

Mechelsesteenweg 418 B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrucker-Str. 15, 6056 Heusenstamm, West Germany

TRIO-KENWOOD FRANCE S.A.

Hi-Fi-VIDEO-CAR Hi-Fi

13, Boulevard Ney, 75018 Paris, France

TRIO-KENWOOD U.K. LTD.

17 Bristol Road, The Metropolitan Centre, Greenford, Middx UB6 8UP England

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD.

4E Woodcock Place, Lane Cove, N.S.W. 2066, Australia

KENWOOD & LEE ELECTRONICS, LTD.

Wang Kee Building, 4th Floor, 34-37, Connaught Road, Central, Hong Kong